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Illustrations.

Manchester Library and Art Gallery Competition :—

Selected Design by Messrs. Crouch, Butler, & Savage.

Details of Selected Design by Messrs. Crouch, Butler, & Savage.

Design by Mr. Robert Atkinson, A.R.I.B.A.

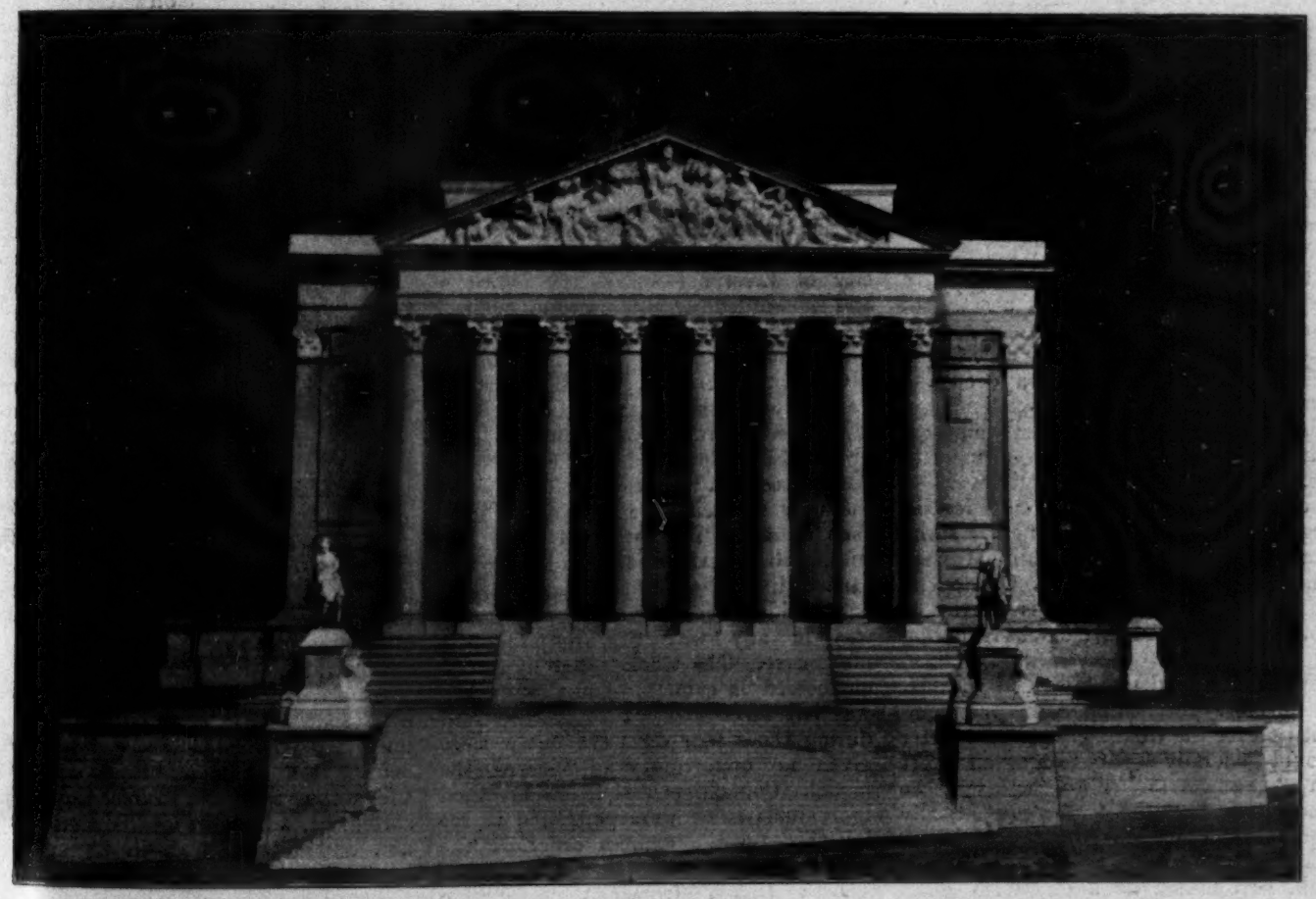
" " Mr. F. W. Simon, F.R.I.B.A.

" " Messrs. Cooper & Slater.

" " Messrs. Bradshaw & Gass, FF.R.I.B.A.

" " Mr. A. Graham Henderson, A.R.I.B.A.

" " Mr. R. Fielding Farrar, A.R.I.B.A.



Proposed Edward VII. Memorial : St. George's Hall, Liverpool. (*See page* 694.)

THE WORK OF THE R.A. STUDENTS.

THIS year is notable for the large proportion of awards in the Painting School that go to lady students. We should be only too pleased to be able to hail the winners as having justified the claim that art knows no sex, could we honestly do so; but, to be quite candid, this year's work in painting is so deplorably weak in the display of any promise that we feel the President was quite right in diplomatically emphasising the virtue of industry rather than indulging in prognostications as to the future career of the prize-winners. The Gold Medal, it is true, is won "hands down" by Miss Williams, but to no other painting could it possibly have been awarded. The successful picture displays a fine sense of composition, but has few graces of technique, being wrought out with the over-insistence on forms and drawing that suggests the term "academic." The Turner and Creswick prizes have provoked the poorest result we have ever seen on the walls of Burlington House, and neither the Decoration nor the Armitage competitions are up to the standard of past years. Surely there must be something radically wrong with a school when the output is no better than that exhibited this year.

The Sculpture School does not seem in very much better case. The work is perhaps technically more accomplished than that of the painters, but there is little displaying any sign of the imaginative faculty.

By comparison architecture stands out well; in fact, the Architectural School, though far from being what we should like to see it, is the only one that seems

at the present time to be possessed of any vitality at all. There is a good deal of dull work here, as must be inevitable, but even this frequently displays a degree of technical knowledge relatively more advanced than the principal painting competitions, while the best work certainly suggests far more promise than any shown in the other two schools.

It is, however, to the individual student that this result must be credited, it being quite obvious that no appreciable pressure is being put upon him in disciplining and training his natural abilities. No doubt the more brilliant are bringing on the less able; that is fortunately incidental to every body of workers, and it gives an occasional, but fallacious, effect of progressive method. This circumstance does not offer any guarantee against a relapse if there is a slight falling off in strength among the leading students.

The Architectural Gold Medal for "The Hall of a City Company" goes to Mr. Alan Binning, whose design is a quiet and dignified rendering of the subject. The scheme is well worked out in a good set of drawings, but we feel that the large hall, the main feature in the design, is too lofty in its proportions for the best effect, both externally and internally. The design by Mr. Bucknell offers more interesting architectural internal effects, and is most thoroughly thought out in detail, and, while it does not display quite the same breadth of effect as the winner, it is a scholarly piece of work. We fear Mr. Adrian Berrington lost his chance by approaching the problem in a spirit of light-hearted gaiety very remote from that of stolid respectability which it is customary to associate with even the recreative aspect of a City company. His design bubbles over with whimsical mirth, and, even though the "portly cit." might carry himself ever so sedately in his cups, he would feel in negotiating Mr. Berrington's curly stairs that he had been doing himself well. Another design, by Mr. J. C. Rogers, in the Byzantine manner, is worthy of note as a broad and harmonious rendering of the subject.

We find the design awarded the 20*l.* prize more interesting than the competition for the Gold Medal. This latter would generally be classed as an effort on "Beaux-Arts" lines, although we understand that the author emphatically and indignantly repudiates any such classification. The subject is a concert hall, surrounded by a cruciform group of loggie enclosing fountains and monuments. The treatment has been carefully studied from the symbolic point of view, and, although we do not feel that this has affected its architectural qualities to the extent that the interest taken in this aspect of the design seems to imply, there is a most skilful graduation from the outlying features up to the culminating point in the hall itself.

There are two subjects embodying the design for a public "place," one dealing with the southern terminal of a proposed Charing Cross Bridge, and the other with a railway-station group. These have provoked a good response from the students, and we can compliment Mr. W. H. Gammer and Mr. V. O. Rees on their designs, which are handled with great restraint and a strong feeling for breadth of effect.

Among the other designs we noted a charming study for a winter garden by Mr. Cyril Farey, which gained him the 10*l.* prize; one for a town house by Mr. W. J. Roberts; while the work of Mr. W. L. Clark and Mr. F. B. Nightingale is characterised by scholarly and refined treatment.

We hope to publish many of these designs in early issues of the *Builder*.

THE LIVERPOOL KING EDWARD MEMORIAL.

IT is now eight months since the proposal to deface the south elevation of St. George's Hall aroused such world-wide opposition that its authors were forced to reconsider their intention, and the matter was apparently dropped.

The general impression was that this ill-advised and altogether unwarrantable project for tampering with an architectural masterpiece—a national, not a parochial inheritance—had been quashed once and for all.

The most eminent architects of Europe and America (including all the architect members of the French Academy of Fine Arts and the late Mr. Carrère), and nearly every London architect with any reputation for scholarship, the Presidents of the provincial architectural societies, leading merchants and public men of the city of Liverpool—all signed petitions and forwarded urgent protests against any meddling with the Hall.

Yet what has happened?

On Friday, December 1, the Finance Committee of the Liverpool Corporation sanctioned a brand-new scheme secretly prepared and approved by the Memorial Committee. On Wednesday, December 6, the City Council were to meet, and on that date the new proposal would be submitted to them and, if accepted, carried into effect without delay. No one outside those immediately responsible was in any way prepared for the manœuvre. The whole affair had been engineered in camera. Only four days was left for opposition to mature, and during those four days the public were given no opportunity of viewing the model. Councillors and a few favoured individuals alone were permitted to see it; this by the express order of the authorities. Beyond the publication of photos (taken from a favourable position) and an imaginative sketch perspective in the local Press, the citizens themselves had no opportunity of forming any opinion on the real all-round appearance of the new scheme or what it actually involved. To devise effective action in the circumstances was, of course, impossible, and, though a great number of protests and appeals by the best-known Liverpool architects were published, nothing more could be done.

It may be asked, What was the explanation of this sudden *coup*? Simply this. The members of the Finance and Memorial Committees, having drawn upon their heads the universal execration of artists and connoisseurs eight months ago, bitterly resented the exposure of their own ineptitude. The discovery that their will could be thwarted by the sheer force of public opinion, if only sufficient time were given for that opinion to be instructed, was as unpleasant as it was surprising to them. This time they determined there should be no mistake. They have publicly professed to regard the opposition their original proposal aroused as being engineered by persons too young and inexperienced to be taken seriously, whose motives were either a misguided conception of their own importance or a mischievous determination to damage the reputation of the civic authorities and acquire personal advertisement. That the Committees had the support of only two well-known architects, two sculptors, and a painter mattered nothing. To save their face, at any rate, the Committees decided to run no risks, and followed therefore a plan of campaign which does infinite credit to their circumspection.

As might have been anticipated, the Council debate revealed abysses of fatuity and ignorance, cheap Corporation wit abounded—puns on "odium" and "podium," etc.—and other evidence of general incapability of realising the nature of the proposal under discussion. Much of what we suppose to be "party capital" was made out of the suggestion that the memorial should be placed on the site now occupied by the Beaconsfield statue. This was denounced as a Radical dodge to insult the Conservative majority in the Council. Several admirable speeches were delivered in a last effort to save the Hall, but the majority of the Council, fearing the consequences of admitting the incompetence of their Committees, deafened their ears, and finally sacrificed Elmes's masterpiece, sixty-seven votes being in favour of the scheme submitted and only twenty-six against.

Still more significant was the defeat of a subsequent proposal to delay the execution of the work for a month in order that the architects, and through them the general public, might have some opportunity of giving their opinions on the matter.

An unfortunate circumstance assisting in the disaster was the intentional or unintentional misreading of a statement coming from a quarter always associated with the strongest opposition. This statement, which was widely circulated and undoubtedly had, in its misinterpreted form, a great influence, pronounced the new scheme to be an improvement on the old, but only if accompanied by drastic alterations in the site and by the provision of a great door within the Hall directly behind the outer door, making the latter a principal entrance and giving a *raison d'être* for the steps. The promoters of the new scheme hailed the pronouncement as if it were a weakening of the opposition and an admission that they were at last justified in their persistence. A vague but none the less mischievous impression was abroad that "a happy compromise"—the achievement so dear to the English temperament, and always mistaken in public matters for "sound statesmanship"—had been arrived at, and no subsequent efforts could wholly dispel the

notion. Few members of the Council saw, or wished to see, that the new scheme was only an improvement on the old in so far as it was accompanied by far-reaching and costly modifications of the site and by a change in the plan of the building.

In our own opinion, any suggestion at all that the new scheme can be made tolerable by altering the interior of the building is incalculably dangerous. We are convinced it is a far wiser policy to withhold from the Philistines all opportunity for further mischief, to give no pretext for a greater catastrophe.

As it stands, the new scheme is as unfortunate as its predecessor. In the latter it may be remembered there was, first, an arrangement of dog-legged steps hacked out of the podium and in the centre an equestrian statue. Then the statue was relegated to the east end of the podium and another pedestal for a future group placed at the west end. Now in the new scheme the whole of the middle of the podium is cut away for the introduction of a wide flight of steps parallel to those already existing above. Projections are thrown out from the remnant of the podium partially to enclose the lobsided avalanche of steps, and on the projections pedestals for equestrian statues are placed, the east to be embellished by the work of Sir Goscombe John, the west to remain vacant till some sufficiently illustrious personage has the good grace to die.

The position of affairs is almost incredible. To start with, the Memorial Committee decides to have an equestrian statue, the essential inappropriateness of which we need not press. Then they refuse to consider the dozen or more excellent sites vacant in the city, and conceive the idea of laying hands on the fabric of St. George's Hall to provide a setting for their equestrian statue—and, having conceived the idea, the only question seems to have been just how much mischief they could possibly sanction. Finally, they approve a scheme whereby the ratepayers are mulcted of 2,500*l.* to provide a series of steps leading nowhere and meaning nothing, and in which the actual memorial statue is made to balance an empty pedestal. It is a unique achievement in the annals of municipal futility.

Before this supreme accomplishment there have been many preliminary canters, it is true—the dismal Niagara of steps in front of the William Brown Museum, the wilderness of stone called St. John's Gardens, the Queen Victoria Memorial. But all these follies pale beside the new memorial scheme.

The most casual survey is sufficient to condemn it. The steps sprawl asymmetrically over the pavement and take away all the impression of lofty, immutable strength that was one of the glories of the south façade. They make it appear to be slipping down the hill. The jagged, oblique line of the steps where they emerge one by one from the pavement emphasises the fact that the whole façade has been thrown out of balance.

Presupposing the necessity of altering the south elevation of the Hall, a scheme of Mr. Huon Matear's was published which had points of vast superiority over the one adopted. In it the lower courses of the podium were retained to form a level plateau upon which the steps descended at a regular angle.

In conclusion, let us make it quite clear that if the Liverpool Corporation thinks it can perpetuate artistic outrages of this sort with impunity, no greater mistake could be made. St. George's Hall is not the property of the gentlemen whose business it is to manage municipal finances, trams, and drains. It belongs to those persons whose minds have been fitted by education in and natural sensibility to appreciate "the most grimly intellectual of the arts." In this matter there is no question of "the agitation subsiding," "the storm blowing over."

We can safely predict that this work, if carried out, will ultimately be destroyed and the podium replaced—just as St. John's Gardens, upon which 40,000*l.* was wasted, will also be effaced and redesigned.

NOTES.

The New Capital of India. THE reincarnation of the ancient and romantic city of Delhi as the seat of empire in India is no doubt an act of the first political importance. Few administrative measures make so striking an appeal to the imagination. Delhi has not only historical associations, but architectural ones also of no mean importance. The transfer of the headquarters of the Imperial Government from Calcutta will involve the erection of new Government buildings in proximity to the fanciful and poetic creations of the old Mogul Emperors. It is much to be desired that the Government of India will rise to the height of the occasion and realise that this is a most important event—a unique opportunity—in the architectural as well as in the political world, and will make some special effort, outside the ordinary routine of their official departments, to deal with the architectural problem in the same imaginative spirit as inspired their political action. Here, if anywhere, an artist, not just a competent and reliable official, is needed. It may be necessary to improve the sanitation of Delhi, but the one unpardonable sin would be to vulgarise it. Presumably a new Imperial quarter will arise laid out in a manner that is suitable for State ceremonies. Here the recent experience of the Durbar should be useful, involving as it did the lay-out of a temporary city for ceremonial purposes. This might possibly suggest a ruling idea for a permanent one which is now to come into existence.

The Object of the British School at Rome. WE can heartily sympathise with Professor Reilly's anticipations, as expressed in his letter to the *Times* of the 7th inst., that the British School at Rome will have a permanently beneficial effect on our architecture. In pointing out that, compared with other countries, we sadly need the strengthening influence of classic studies Professor Reilly enforces his arguments by references to John Wood's work on Palmyra and Robert Adam's on Spalato, and by contrasting such studies with the unhealthy practice which results in a new piece of detail, or some ingenious trick of design, spreading like an epidemic through the architecture of the day. While a great deal of modern "free classic" is "free from nothing so much as the classical spirit of refinement and restraint," we must look to the architectural students of the new school to supply the much needed corrective to such a state of affairs.

Lady Students of Art. SIR EDWARD J. POYNTER in his address to the Royal Academy students and their friends on the evening of December 9 referred, as he did last year, to the successful work done by women students. He attributed the results mainly to the better powers of application possessed or exercised by the lady members of the schools. The President alluded particularly to the work of Miss Margaret Lindsay Williams, who, it will be remembered, secured no fewer than four prizes last year. This year this industrious painter wins the coveted Gold Medal with Travelling Studentship, also the first prize (30*l.*) with medal for her design for the decoration of a portion of a public building. A point which arises naturally in regard to this promising career, officially approved by Sir E. J. Poynter, is the future eligibility of Miss Williams for Associateship of the Royal Academy. Mary Moser and Angelica Kauffmann were original members of the Academy, and in recent times Lady Butler was only two votes behind when Sir H. von Herkomer was elected Associate. Can it be prophesied that Miss Williams, trained in the Schools and possessing the artistic qualities admired at Burlington House, will break down the barrier of sex which has existed since the foundation of the Royal Academy, and in due course, if her progress is maintained, be elected A.R.A.? There seems to be no reason why such an honour should not be conferred, if in Academic circles women continue to outpaint the men. The ranks must be filled. It may be mentioned that Miss Williams is not the first lady who has taken the "Gold" for painting; Miss Louisa Starr took it in 1867 and Miss Jessie Macgregor in 1871. Since 1879, when the Studentship and Medal were combined, one lady has won the distinction, namely, Miss Robilliard, in 1909. So far the women students have not challenged the supremacy of the men in the architectural schools.

The Semi-Nude. A FEW weeks ago we illustrated some female statues used as lamp standards outside the new Town Hall at South Shields. These figures have given offence to certain inhabitants who, not entirely on their own account, have protested because they fear the youth of the town will be demoralised. Sensitive maids have been seen to blush in self-consciousness, and all the usual objections are raised. We had them in London when the Venus of Velazquez found its way to the National Gallery and when Mr. Epstein's figures were placed on the British Medical building in the Strand. The supposed outrages on modesty are usually exaggerated on these occasions. The best course for the South Shields Town Council to take is to remain neutral in the controversy. The attention directed to the statues

will be diverted by other interests in the locality, and the public will soon get used to the new appearance of the Municipal Buildings and their decorative features. If anyone sees moral danger in the representation of the female form it is due probably to personal idiosyncrasy, and the agitation in South Shields may be dismissed as prudish.

Overstrand Church.

HAS not the Society of Antiquaries rather overshot the mark in its protest against the reconstruction of Overstrand Church? On general principles we should be disposed to agree with the attitude taken up, but think it open to question whether they are applicable to every case. A derelict ruin stripped of its ivy and regarded as a sort of museum piece to be studied by the few earnest archæologists who may find themselves in the locality does not make a strong appeal to our imagination, and, though this form of preservation may be entirely justified where there are features of unique or exceptional interest, there is also something to be said in favour of the sentiment of worshipping in a place hallowed by the tradition of centuries, even though the actual structure may be to some extent a modern one.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE third general meeting (business) of session 1911-1912 of the Royal Institute of British Architects was held on the 4th inst. at No. 9, Conduit-street, Regent-street, W., when the following gentlemen were elected :—

As Fellows :—

H. Barnes, Hartlepool
H. W. Bird, Hong Kong, China
West J. Spain, East Boldon, Sunderland
R. D. Wells, London
H. White, Loughton

As Associates :—*

M. S. R. Adams, Bedford Park, Chiswick
L. M. Angus, London
E. E. Barks, London
P. L. Baxter, Great Stanmore
H. J. Benians, Goudhurst
W. T. Benslyn, Birmingham
R. H. P. Bevis, Southsea
A. G. Blackford, London
K. S. Broad, London
B. Brown, Bradford
M. Brown, London
J. E. Bullock, London
L. H. Clarke, Harrogate
J. C. G. Davies, Morriston, Glam.
W. F. Davies, Liverpool
C. Davis, Putney
C. A. Edeson, Derby
A. F. Evans, Liverpool
L. J. Finning, Pinhoe, Exeter
W. T. Garbutt, Bradford
W. S. Gorringe, Seaford
B. M. Goodwin, London
G. D. G. Hake, London
C. A. Harding, Glasgow
G. W. Home, London
T. C. Howitt, Nottingham
J. N. Keaseley, London
F. W. Knight, London
W. Lawson, Newcastle-on-Tyne
A. D. Leroy, London
P. N. Logan, Bristol
C. W. Long, London
M. R. Martin, Brentford
F. E. Mennie, London
H. I. Merriman, London
A. H. Mottram, London
G. B. Owen, Sydney, New South Wales
T. A. Parker, Cole, Lancashire
J. W. Paterson, Edinburgh
I. M. Pritchard, Chiswick
H. L. Samson, London
C. M. Swannell, London
F. H. Swindells, London
M. J. Tapper, London
H. Thornton, Dewsbury
A. G. W. Tickle, London
H. West, London
J. T. Westbye, Christiania, Norway
A. E. M. Whitehouse, Manchester
N. Wright, Sunderland
L. E. Williams, London
A. W. Wilson, Cumbergate, Peterborough
C. R. Winter, Bournemouth
H. Wormald, Wakefield
C. Wright, London
A. M. C. Young, London

As Hon. Associates :—

Walter Crane, R.W.S.; Commendator Royal Crown of Italy, Kensington, W.
J. H. Marshall, M.A. (Cantab.); Companion of the Indian Empire; Director-General of Archæology in India; Benmore, Simla, India, and East India U.S. Club, St. James's-square

* All the applicants for Associateship passed the Qualifying Examination in June last.

Election of Licentiates.

At the Council meeting of December 4 the following candidates, having been found eligible and qualified under the Charter and by-laws, were elected Licentiates of the Institute in accordance with Bylaw 12, viz. :—

C. E. Ainley, Manchester
J. Arabian
R. J. Archibald, Middlesbrough
C. W. Bell, Sunderland
W. H. Bridges, Skegness
B. Cooper
A. H. Coyle, Baroda, India
G. H. Davies, Pontypridd
W. A. Dew, Hyde, Cheshire
A. E. Diack, Aberdeen
C. H. Dyer, Bloemfontein
T. Glazebrook, Stourbridge
C. I. Greenhow, Newcastle
C. H. Grieg, Edinburgh
W. Hall, Oudtshoorn, South Africa
E. W. Hilton, Altrincham
L. Holdsworth, Wakefield
G. W. C Lane, York
V. A Lawson, Stroud
F. G. I. Logg
J. M. Lewis, Madras, India
J. Lowson, Aberdeen
D. Macdonald, Dingwall
T. Malvern, Cheltenham
W. T. Margetts
R. T. Miller
B. C. Palmer, Lewes
E. Pawley
P. Reid, Kirkcaldy
W. H. Scott, Cardiff
S. Selwyn, Eastbourne
W. G. Shipwright
H. A. Sisley, Manchester
C. B. Smith
C. H. Spark, Sydney, N.S.W.
A. W. Stabler, Durham
J. H. Stanford, Toronto
W. Steer, Brighton
S. Taylor, Burnley
H. Townley, Manchester
G. J. Viner, Morriss
J. D. White, Bootham, York
A. R. Wood, Burslem, Staffs

THE TEXTURE OF MATERIALS.

A COMBINED ordinary general and Camera, Sketch, and Debate Club meeting of the Architectural Association was held on Monday at No. 18, Tufton-street, Westminster, S.W., Mr. Gerald Horsley, President, in the chair. Mr. H. A. Hall, Hon. Secretary, made the following announcements :—

Meeting of the Camera, Sketch, and Debate Club on January 18, at 7.30 p.m. Paper by Mr. C. G. Boutcher, A.R.I.B.A., entitled "Architectural Perspective."

First spring visit on January 6. Further particulars will be announced later.

The following gentlemen were elected as members, *i.e.* :—Messrs. A. Harris, Victoria-street, S.W.; R. Sheppard, London; R. S. Wilshere, Finsbury Park, N.

On the motion of the President, a vote of thanks was accorded to Mr. Arthur T. Bolton for presenting diagrams of Jacobean plans to the School.

The President then nominated Mr. Theo. Fyfe as a member to serve on the Council to fill the present vacancy.

Mr. Alan E. Munby then read the following paper, entitled

"IS THE TEXTURE OF MATERIALS A FETISH?"

"When I mentioned the title of this paper, which your Hon. Secretary has been good enough to select for me, to an eminent official of the Institute in the hope that he would supply me with many volumes dealing with the subject, he, unable to do so, remarked, "Well, I suppose all you can say is 'No.'" My rejoinder was that, although he had gauged my literary powers with more severity than kindness, I felt a doubt as to whether so terse a paper would be exactly what was expected of me, and whether it was the best preparation for a discriminating discussion.

What is Texture?

To begin with, what is texture? One's first impulse is to appeal to Dr. Johnson and digest his definition, but the understanding of terms is not really synonymous with the defining of them, and it is the understanding with which we are now concerned. We probably all understood the feelings of the artist recently depicted in *Punch* who, on being asked in a restaurant by the amazed Phyllis whether he were really going to take brown sugar with an ice, replied : "I am, though; it gives it a texture." It is obvious that a vanilla ice, with its absence of life and its unvaried surface, would be vastly improved in appearance by the addition of brown sugar, reflecting light in various directions and presenting irregularities of surface which must add interest and thus tempt investigation. It is with this question of variety that, I take it, texture is mostly concerned. Why is a Tube station built of glazed faïence wholly unpleasing to the senses, when a dilapidated plaster cottage, stained and weathered with age, is able to charm our vision? Does it not depend upon the variety displayed by the latter? Select any particular feature of the plastered wall, say, a brown stain, on a sufficiently minute scale to deprive it of variety, and repeat it as the whole wall; the effect is dull and devoid of interest; the surface would lack texture owing to repetition. We are, be it observed, speaking of repetition of featureless surfaces, not repetition of architectural forms; few, indeed, would criticise the view that repeated architectural features, if these are initially good, make for repose and stateliness in buildings more than anything else.

If, then, we are to attempt a definition of texture, it should perhaps be variety on a minute scale, and we have now to inquire as to the nature of this variety. Has it a real existence as a physical entity, and, if so, does it appertain to the material itself, or to the conditions of our inspection as regards light and atmosphere; or is it a thing merely of artistic cultivation or inborn feeling; or the result of mental training, whereby some and not others are affected?

Perhaps these questions are best answered by taking some individual substances and considering their physical properties and conditions of inspection.

Bricks and Tiles.

Let us take the material which forms the external surface of the vast majority of buildings in this country—brick. There are some hundreds of varieties of bricks, but we will confine ourselves to the consideration of two. If we go north of the Trent and examine some of the important brick structures we shall find that the pressed bricks of Accrington have a great vogue. They are a dull red, with a semi-vitrified face, and therefore are non-retentive of dirt and not subject to surface erosion; moreover, they are large, being a full 3 in. thick, like most North-Country bricks. Very little variety is to be observed in them, and the mellowing hand of time offers to such materials in vain the insidious germs of decay. As they are built up so will they remain in tone, character, and semi-sheen.

Now turn to the little hand-made, sand-faced bricks, such as those obtained from Clare, in Suffolk, rough, rich in purple patches, and bubbling with variety. Why do they charm us? Is it not their irregularity? A sand ripple here, a flint there, a purple header to the right, a brown one to the left; it is surely variation which produces upon certain minds a sense of artistic satisfaction and a quiet feeling of repose and harmony. This state of mind, however, is not universal. I remember a builder who had much admired an architect's work expressing his disapproval in no measured terms at the (to him) inartistic effect of mortar joints an inch thick; and I have heard the exclamations of approbation from a clerk of works on viewing a roof of hard-pressed tiles laid with a mechanical precision worthy of a dividing engine. Whether such approbation came from a well-ordered mind or from one untutored is for your decision this evening. Brick architecture is, indeed, capable of an immense variety of expressions according to the size and nature of the component bricks, quite apart from architectural treatment, and Nature lends further aids with her soft touches of vegetation.

One of the most beautiful pieces of brickwork I have ever seen is that composing the Almshouses at Audley End. There is nothing very striking in the design of the buildings, two brick string courses, brick mullioned, circular-headed, leaded windows, very irregularly spaced, and, runing out of the main line of roof, gables in brick, some of them unwindowed. But the rich mellowness of the whole building bemossed and lichened, as I recently saw it, in the full glory of a sinking sun, left a most vivid impresion on my mind.

It is curious to note withal that, whether texture be a fetish or not, the forces of Nature seem to treat more kindly those materials which possess the charm of irregularity of surface, than those which attempt to exclude her weathering and eroding agencies. The hand-made tile, rough and absorbent, which makes a home for the seedling and the moss spore, is oftentimes when removed found to be as hard and durable as though made yesterday instead of a century ago; whereas the pressed tile and the terra-cotta block, unless made with consummate care, soon flake and shell, giving an appearance of dilapidation which is anything but pleasing, because it is the direct effect of purely mechanical disruption.

But even bricks and tiles are to some extent artificial, and what texture they possess is the result of mechanical treatment. Let us now turn to some materials of Nature's own composing and see whether this quality of texture is really a thing to be found in the mineral products of the earth.

Stone.

What of stone? We must dismiss from our minds the lofty Gothic spire, with its delicate outline laid against a blue vault of sky, or the civic dignity of a Renaissance façade, and think only of the flat surface of an individual piece of stone.

In our big cities we are apt to employ stone from a too purely architectural standpoint—*i.e.*, to utilise it for the expression of conventional features more than for what it can do of itself. Perhaps the unequal struggle between the material and the enveloping effects of city grime is an excuse for this attitude, but away from the town the material may be given scope for its own efforts unaided by form, which, on the score of cost, often proves its only possible use. Would, indeed, that it were more often so employed, and that the speculative designer would stay his hand on the production of his fretful and pretentious ornament, and retain his masons' wages in exchange for a little thought in the selection of his material.

That stones differ in texture is a proposition which hardly requires proving, but how much they differ is perhaps not generally realised. Again, we find that when we rely on the material itself for effect, coarseness of grain provides, at least, to the possibly disordered brain of the artistic, the greatest sense of charm. A plain window dressing in Ham Hill stone is delightful; the same treatment in York stone is dull and mechanical. In London we all use Portland stone, but whether it is because we have been brought up on the pabulum of successive repetition in the matter of specifying, or because the builder has a sacred horror of anything outside the oolite formation, has never been quite clear to me. I do not wish to degrade the theme of my discourse to a mere lecture on building stones, but, since texture is intimately connected with minute physical properties, I will venture to show you with the aid of the lantern a few specimens of enlarged photos of actual stone sections.

Now let me turn to another material of Nature's own production—timber.

Timber.

For nearly all purposes for which timber is required in situations in which its characters can be observed, it is wrought, and therefore any texture it possesses must be due to the porosity and markings of the material. No timber to my mind is more attractive than that left clean from the plane and innocent of paint or varnish. Such absence of treatment is not always possible, however, nor desirable in all situations, but where protection is required beeswax rubbed into the pores of the wood in a suitable solvent will still allow the texture of the surface to remain, and will not prevent the timber from toning. Naturally, wood which is figured and which is cut to display the figure to the best advantage presents more attraction than unmarked timber, but even a piece of yellow deal will, after a few years of exposure, assume a tone which has much individuality. That woods, even of the same class, differ considerably in structure and hence in texture will be evident in viewing the sections of a few timbers which I place before you in the lantern.

Metals.

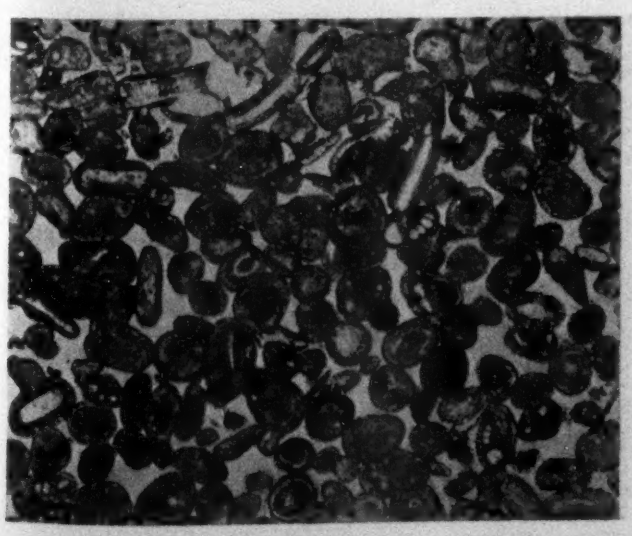
Compare the effect of an old chair possessing the hand polish which continual use can alone afford with the same piece of furniture varnished after leaving the cabinet-maker's shop. The wood is the same, but the texture is, in the former case, brought out and the tone of the wood mellowed; whereas in the latter such variety as the wood possesses is at least partly concealed by the unbroken gloss of the varnish, which reflects much of the light falling on it direct from its outer surface. In this connexion it is of interest to note the growing public appreciation of flat as against bright surfaces. A flat surface allows the penetration of light, and hence admits of a truer appreciation of the nature of the substance, more especially when viewed obliquely. The more the light is reflected from the surface of a body without penetrating into it the less will the particular characters of the substance on which the light falls be transmitted to the observer's eye, till in an extreme case we get a mere mirror, itself a characterless thing, returning the light exactly as it receives it. We may therefore take a perfectly reflecting surface as the antithesis of texturehood, which leads us to a mental reflection on the metals which perhaps of all our materials show the least texture, and, apart from cases of imposed form, a surface of metal is not usually regarded enthusiastically for architectural treatment. Yet metals are not quite textureless, and all have in reality a crystalline structure, which may be brought out by etching their surfaces. The slide before you shows a piece of silicon steel (much magnified) etched in this manner. Our dependence on texture is well illustrated by reflecting on the distress we should experience did a client insist on his house being faced externally with sheet-iron plates; but new methods of construction are constantly calling upon us in the matter of treatment, and, should means be found to circumvent the atmospheric oxidation of iron, such a problem might be assigned to any architect, and the economical treatment of a façade comprising only materials poor in texture might well form a subject for a prize essay. Where a metal is soft and easily oxidised it is naturally amenable to assuming a texture through irregularities of surface. Old lead, particularly if cast, even in a plain waterpipe, may be very attractive to those possessing a certain mental attitude. Yet that roughness of surface does not constitute effective texture even in a metal seems to be proved by the (at least to some of us) horrible appearance of metals applied to surfaces in the form of powder. Aluminium paint, for example. It is possible that is such cases the sense of unreality causes in honest minds a feeling of revulsion similar to that produced by 5-in. by 1-in. stained deal—"oak," half timber-work—but the psychological dissection of one's feelings and the expulsion of bias in the matter of one's attitude towards so complex a thing as texture is beyond my mental capacity.

Atmospheric Influences.

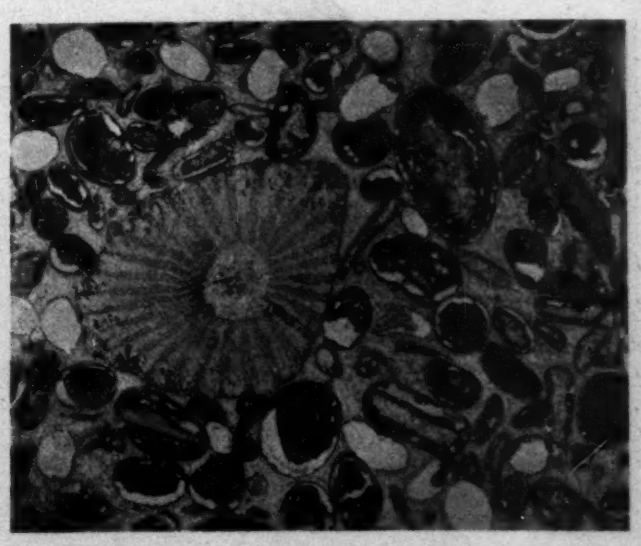
I have endeavoured to deal with some more prominent materials individually, but the conditions of their inspection must not be overlooked. The question of atmosphere in connexion with texture was raised at the beginning of this paper, and undoubtedly atmospheric influences do affect the feeling which materials display. I have never seen a Tube station nestle, even in a London fog at sunset, but undoubtedly the hardness of its lines is lessened and its enamelled surface is deadened. Distance does, indeed, often lend enchantment, because of the softness it imparts, and possibly more owing to the inventive scope it gives to the mind, which mentally fills out the picture in a manner best suited to the timbre of the observer.

Atmosphere is not, however, merely an abstract artistic expression; a definite absorption of light takes place between its reflection from the object in its passage to the eye of the observer, so that objects viewed through vacuous space would not have quite the same appearance as those viewed through air, more especially if that air contains, as it generally does, floating solid particles.

The irregularities of a surface are interpreted to us by means of light and shade. It is the shadow cast by the projecting pebble which makes its projection apparent, and the strength and sharpness of that shadow will depend upon the nature of the light and the distance of the object. The sharp black



Ancaster Limestone.
(Magnified 20 diameters.)



Box Ground Bath Stone.
(Magnified 20 diameters.)

shadow such as is cast by an arc-lamp is not wholly pleasing; its contrasts are too violent, and deprive the subject of that continuity which is essential to artistic effect. Atmosphere, by toning down the shadow effect, gives in the beautiful half-tones the soft, almost inimitable graduation of light upon a rounded surface, which forms so essential a factor in repose.

Eve's golden rays
Falling on glade and stream,
Flecking the forest path with slanting beam
Made glorious by her minister the shade,
Sinking through the distant air
The purple haze.

Colour.

There is still one great factor in connexion with texture upon which I have not touched, and that is colour. It would be impossible to trespass upon your patience by attempting to give any details on this subject, which has been often treated from an artistic standpoint in more scholarly effusions from this rostrum. Physically, however, colour is due to two things—the composite nature of most sources of light, which are really made up of coloured rays, and the power of most bodies upon which such rays fall of absorbing some of these colours more than others, and thus reflecting a mixture of rays dissimilar to those falling upon them. Ordinary sunlight and some artificial lights (such as acetylene) are composed of the various colours seen in the rainbow, which, mixed together, produce the sensation of white. When such light falls on a red brick most of the blue rays are absorbed and converted into heat; the reflected light, therefore, contains such a preponderance of red rays that the object appears red. It is obvious from these considerations that the further light penetrates into a light-selecting or coloured body the deeper will be its colour, since the less will the amount of unaltered light merely reflected from its external surface. This is well illustrated by the fact that transparent coloured bodies in large pieces are deeper in tint than the same substances in the form of powder, examples of which I put before you. As it can hardly be denied that texture is affected by colour, this quality must then be influenced by the nature of the light in which the body is viewed. If proof is wanted, it is only necessary to repeat the make-believe ghost stories of our children's days and enter a darkened room with a flame tinted with sodium vapour from salt. You will readily observe the changed appearance under these conditions of the coloured powders on the table.

The wonderful play of colours which we value so much in many materials, the beautiful veins of marble giving us greens, reds, and yellows; the warm, cheering tint of Ham Hill stone; the blending of purples, browns, and reds on our sand-faced bricks, are all due to the wonderful variety of absorptive properties possessed by bodies of slightly different chemical compositions. Further, be it noted, nearly all colours in materials are due to that, at least in artistic circles, much-abused metal, iron, in an oxidised form.

I have endeavoured to show that the texture of materials, the existence of which, I think, it is not proposed to deny, depends upon various factors operating in various degrees. Some of them are certainly physical, and are thus amenable to the application of scientific investigation; others are, no doubt, temperamental, and hence are hardly reducible to distinct terms in the present state of psychological research. I take it that you have not called upon me to answer the question which forms the title of this paper. It may be that the correct attitude towards texture is that of the mechanically-trained mind, which makes symmetry of form down to the last mathematical detail a fetish, and that the worship of these irregularities which constitute texture are the outcome of a disordered brain distorted by long hair and a velveteen coat. The decision I leave to you, and at the same time give you my thanks for your patience, and my pleas for lenient dealings with my oratorical and critical shortcomings."

The lecturer showed several interesting lantern slides of the structure of building stones and timber.

Mr. A. R. Jemmett,

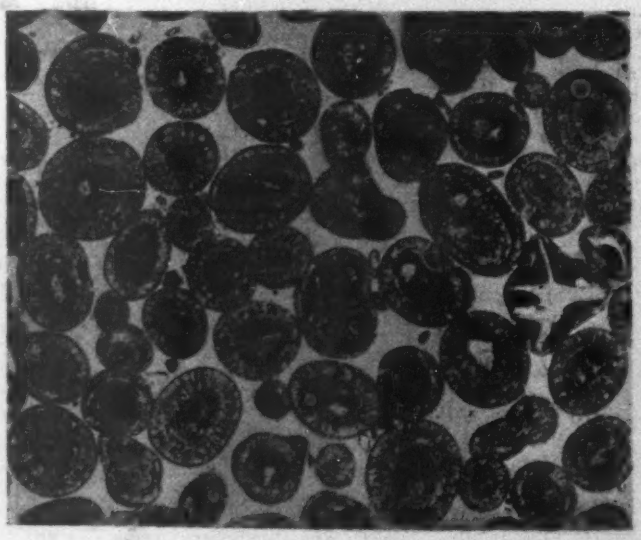
in proposing a vote of thanks to the lecturer, said he wished he were competent to deal with the scientific side of the question. As it was, he would start with the question that the lecture asked as to whether texture is a fetish; but the trouble was to know what was a fetish. The lecturer had carefully defined texture, but he had not given a lead as to "fetish," but he (the speaker) took it that it meant a sort of false god. Mr. Munby did not appear to regard texture as a fetish, or he would not have taken so much trouble in preparing such an interesting paper. No doubt there was something in texture, but the way it was used in modern work—the idea of importance attached to it nowadays—was distinctly a fetish. In modern domestic work one found buildings in which more importance was attached to the material with which it was built than to the forms and proportions, and there were many architects who let their buildings "happen," as it were—their forms and shapes "happen"—and trusted to salvation to the beauty of the brickwork with which they built. A great deal of our architecture nowadays let the features and forms "occur," trusting to the bricks to pull it through; but the finer the design the less it depended on the texture of materials. If they got a little hut or barn or house with no particular interest in it of design it was saved by the materials; but if they erected a building like a Greek temple or Gothic cathedral, the texture of the material was of very little importance. All the finest effects of the buildings—the characteristic effects of the buildings—came when one was at such a distance from the building that the texture could not be seen. If one looked at St. Paul's Cathedral from Waterloo Bridge the buildings created an impression on the mind, a grand effect, which, no doubt, "texture" had something to do with; but the actual texture of the stone was a matter of little importance. In the same way the texture of the material had very little to do with the impression created in looking at Lincoln Cathedral. Or take the west front of Nôtre Dame and view it from the square and then from the other side of the river—the building could tell its story, and impressed one, even if it had been built in cement. Or take the Parthenon and view it a few hundred yards away—it would look just as well if cast in cement. They could go close up to a building and, appreciating the point of view of texture of the materials, get the effect aimed at; but when they got away some quarter of a mile the texture disappeared, and any bad proportion struck one, and the building had no fine effect on one at all. In that way he thought there was a great danger in modern architecture of making a fetish of texture. Mr. Munby said that a perfectly plain surface would not interest anyone, and that the importance of texture was its variety. That was obvious in a way, as the sky at night would not interest one if there were no stars in it. We wanted to get the variety on the surface in order to get interest, so that from that point of view the production of texture was the whole art of design. They had to take perfectly plain surfaces, and proceed to ornament or mould them, and texture was got by this modelling—the giving of light and shade, and producing a texture which, seen, at a distance, looked well, and from that point of view texture was not a fetish.

Mr. H. D. Searles-Wood

seconded the vote of thanks, and said that, in regard to the lantern slides they had seen, Mr. Munby had formed an album of sections of stone at the Institute, and had written an interesting introduction to them. Anyone who wanted to study the question of stone could not do better than get that book from the Institute library, for it contained a great deal of interesting information. With regard to texture, there was the question of bricks and mortar joints, and whether the work was fresh from the builder's hands or whether an interval of a few years had elapsed when the effects of the weather had told on the joints, and when they were very far from satisfactory. That was the point where the picturesque ended and the painful began. It was a difficult point to determine how far good solid construction should give way to texture. As to the small bricks which were such a fetish at the present time, they made bad bonding. Small bricks did not make good brickwork unless there were small bricks throughout a wall, and that was a luxury which few of them could afford. With regard to the sections of wood, anyone could make them; it was a fascinating way of studying the wood question. Could Mr Munby give them a reason why colour faded in materials?

Mr. J. D. Crace

said that it must not be overlooked that certain stones were adopted—Portland, for instance—not for uniformity of colour, but because they stood the climate, especially the climate of cities, better than other stones that were available. Stone required definite treatment in mouldings; if one took Ham Hill



Ketton Limestone.
(Magnified 20 diameters.)

Ham Hill Limestone.
(Magnified 20 diameters.)

stone, it would be absurd to put in the same detail as in Portland stone. Ham Hill stone was admirably suited to buildings of a simple character, but it would be wrong to introduce mouldings or carving unless on a large scale. The desirable character of stone, therefore, did not depend merely on texture, and, after all, texture sank into insignificance in the distance. In the case of wood of even grain, a much more beautiful effect was obtained without polish, or only such as would preserve it from the action of damp and weather. As to wax with a solvent being a protection, the wax was better without the solvent, as in damp weather the solvent was apt to come to the surface again. As to metals, in some cases part could be polished, and the other part could show the texture, and the combination of polish and texture was often of great advantage. Nor did he think that anyone would object to the natural surface of wrought-iron, for which the same excuse and the same advantages could be claimed as for the natural surface of wood. Atmosphere entirely modified appearance, and that was where texture ceased to be of consequence. As to colour, although it was quite true that colours were greatly affected by how much they were broken up in the actual pigments, when they were once put on to a surface it was practically not very much affected. It was the difference between making a water-colour drawing on a smooth paper or a rough one. Was there not considerable risk in trusting too much to these adventitious circumstances of building material? It seemed to him that that was a thing which every architect in practice would gradually experience, but when they were considering architecture as an art these variations assumed an insignificance, except to this extent that each material should have its own treatment, and whether that was a treatment consequent on texture or on other circumstances was a subsidiary question; but there was always the danger of laying too much stress on the adventitious conditions of surface or other things. He had noticed that whenever he had been present at discussions on his favourite subject, *i.e.*, colour decoration, the question was at once raised: is it more successful in oil or tempera or fresco? That was a question quite apart from the question of the use of colour.

Mr. T. L. Dale
said it was largely a matter of design as to whether the texture was of importance or not, and it was largely a question of scale. If the building was of sufficient importance to produce an effect, texture was of slight importance, but if the building was something small, like some of the ideal homes, texture was then a matter of importance. If they were relying on form as in a Greek temple, they could afford to disregard texture; but in an ideal villa texture was sometimes the only thing which could be made at all interesting.

Mr. H. W. Brittan
said he always felt that the Greeks snubbed material. In marblework they relied on fine finish and form, but form was what they aimed at chiefly.

Mr. A. E. Bullock having spoken,

Mr. J. B. Scott
said that the materials of to-day were better than those of twenty years ago. Care ought to be given to the selection and use of material. It had been remarked that if you looked at a building half a mile off it did not matter what the material was, but we had to look at buildings close to us as well as at a distance.

Mr. Alec Hornell said that every material had its texture, and an effect could be got out of bricks if used in a right way.

Mr. T. C. Yates
referred to Butterfield's work, and said that Butterfield was one of the grandest architects of his time, but he failed in texture. Keble College was a fine design, but the whole thing was overloaded with ornament; one was bewildered by ornament. If Butterfield had listened to Mr. Munby's paper he might have modified his external decoration, and his buildings would have given even more pleasure than they do.

Mr. C. G. Boutcher
said the Greeks did not trouble about texture, even going out of their way to get rid of it. He did not agree that a flat surface gave a better notion of material, but a polished one did. If one polished granite it gained density of tone and colour. A water-colour drawing when it was glazed was far deeper in tone and colour than when unglazed.

Mr. N. Hadwen having spoken,

Mr. A. T. Bolton
said it seemed to him that one point was that colour depended upon texture. He had a particular affection for the old London chimney-pot, such as could be seen at Kew, and he had desired to put some on a house he designed, and the result was that the apparently red pot at a distance of, say, half a mile looked black. The reason for that, he believed, was that the old chimney-pot made on a potter's wheel had an open texture, but the modern ones were produced by a machine in the same way as drainpipes were, and the density of the material caused the light to affect the colour in the way described. It seemed obvious to him that colour and texture were intimately connected. The examples of ground and unground materials which Mr. Munby had shown greatly interested him (the speaker), because some years ago he gave a good deal of attention to mosaics and carefully examined some of those old ceiling mosaics at Rome and elsewhere, and he discovered that those beautiful blue vaults were produced by variations in the size of the tesserae and the size of the texture and the coarseness of the material. The importance of that was great; and spacing and jointing had a good deal to do with the result. He did not agree that the Parthenon would look the same in Portland or any other cement; the quality of the marble was intimately connected with the design. A problem was why some buildings were regarded as exceptionally beautiful? To the translucency of the marble, which modified the shadow, had been ascribed, by Mr. Chisholm, much of the beauty of the Taj Mahal; and that would apply to the Parthenon. The translucency produced by the polishing modified the shadows precisely as it did in the Taj Mahal; but with marble and a brilliant sky they had a good many of the trump cards which we did not get in this country. In Seville there were some late-period buildings, with common, washed-out, red bricks inlaid with tiles, and under the sky of Seville these tiles matched the sky, the combination being very effective; but seen from above these tiles were nothing but the commonest black tiles, and it was the sun shining on them that produced such a glorious effect. An artist saw a thing as true without necessarily knowing the true scientific reason for it; his observation might be true and his own reason for it wrong. Mr. Munby's paper showed how intimately science could help them. As to Mr. Butterfield, the answer was that the architect said his buildings would require 100 years before they could be judged, and Keble was not as old as that yet; but that would not help the inside, which was very trying in colour effect. He had always been greatly interested in the subject of old stone walling, and in order to see how it was done had often measured lengths in various places. Wanting to get a garden wall built rather more like the old work, he bought a quantity of old stone, and, instead of employing a mason, he got a common labourer to use the material with the help of three or four other labourers. The result of their work was splendid, for it looked like a bit of some old mediæval castle thrown up in a hurry with the enemy on the horizon, though the local builders and masons did not like it at all. Later on it was necessary to make some alterations, and he let the ordinary masons do the work their way, only stipulating that there was to be no cobweb pointing, with the result that it looked like part of the ordinary seaside church—surely the lowest limit of rubble masonry. That all showed the advantage of studying old methods of walling and then getting men in a given locality to build in the way they could understand. He agreed that the size of a work was of importance in considering the question. He always thought that the very expensive bricks used in the outside of a great structure like the Westminster Cathedral were wasted, for common stocks might just as well have been used, judging by the effect of various old buildings he had seen, for the design would have looked as fine, if not finer, and the money saved could have been spent inside, where it was needed. That was an illustration of texture being carried too far. Design and scale had a great deal to do with the question. As to wax and solvent for the treatment of woodwork, it was all right if the solvent used was spirits of wine. It was expensive, but the treatment prevented the wood taking up dirt in the objectionable way in which it had in those premises, and the solvent evaporated.

The Chairman,
in putting the vote of thanks to the meeting, said that in olden times design counted for more than texture. It certainly seemed to be the case that the old builders had not texture in mind, but they had the effect of colour; nowadays, we seemed to have lost sight of that, though some speakers had alluded to it that night. As to Mr. Crace's remark that each material should have its own particular treatment, that seemed most true, but the difficulty was to know what the treatment should be. He remembered a modern church roof made of plain deal which looked very well, and a few years afterwards he saw the church again, and he found that the roof had been varnished, and the effect was horrible—the beautiful colour of the wood had gone and the varnish had taken its place. During one's practice one found out what was the best way to treat materials.

The vote of thanks having been heartily agreed to,

Mr. Munby,
in reply, said he quite agreed with Mr. Jemmett that, if one had a big building and viewed it from a distance one was fairly independent of texture; but this involved architectural form, which was really outside the discussion. At least, that was the spirit in which he considered the proposition, *i.e.*, that they should try and consider texture apart from architectural form altogether—as applied to a flat surface. As to the R.I.B.A. book on stones with which Mr. Searles-Wood had credited him, it had really been produced by the Science Committee. He hoped it was of some value as indicating the texture of stones and distinguishing one stone from another. In reference to the use of 2-in. bricks, 2-in. stocks could now be obtained, and there was no reason why good bonding should not be got if the work was carried right through. They were rather more costly than ordinary stocks, but not excessively so. Mr. Searles-Wood had referred to the fading of colour; a colour changed when light decomposed the material and changed it into something which had no colour or but little colour; it was the result of some actual chemical decomposition. He quite agreed with Mr. Crace that one cannot get fine arrisses with Ham Hill stone; but in some districts there was a fair amount of carving carried out in the material, and it was a stone that could be recommended where one could not afford architectural detail. Touching the question of solvents, there was a difficulty in getting beeswax into the wood without the aid of a solvent. With the use of spirits of wine or turpentine, the wax could be got in easily, and then the solvent would evaporate. The final effect would depend on the amount of labour put into the work. As to Mr. Crace's remarks about metals, he (the speaker) did not mean to suggest that in a fine decorative scheme polished metals as a contrast would not be an advantage in a good many designs. Dealing with the question of treatment, the lecturer remarked that if architectural features could not be afforded, what was to be done? It was often as much as one could do to get clients to use 2-in. bricks, and many must, for small work, depend largely on texture. Something had been said about the range of use of materials. They were trying to find out at the Institute why roofing tiles failed. He was told by a manufacturer not long ago that people would have roofing tiles made in certain old tints, and in producing tiles of that tint the material was improperly prepared; that was due to the insufficiency of knowledge of what certain materials would do; it was clear, therefore, that the use of materials should be confined to certain recognised limits. A speaker had suggested that the materials of to-day were better than they

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were before; he did not agree with that altogether. Old tiles might be cited as often better than modern ones. Mr. Bolton had given some interesting experiences on walling. As a rule, if one left a piece of plain walling, the client, unfortunately, generally wanted to cover it up. The old walling work was done in a jolly and haphazard way by men who were only partially educated in their craft. In those days the architect was the craftsman, and he was able to supervise things at leisure. Now, the ordinary contractor was not a builder, but a business man, and the architect was harassed by technical questions which were too apt to drive out questions of feeling and the smaller details, which meant so much in their collective effect.

The President announced that the next meeting will be on January 15, when a paper will be read by Mr. E. F. Strange, entitled "Alfred Stevens."

ARCHITECTURAL SOCIETIES.

Manchester Society of Architects: Science and Proportion.

At the sessional papers meeting of the Society on December 6 Mr. Paul Ogden, F.R.I.B.A., read a paper entitled "Science and Proportion." Mr. Ogden's paper has been awaited with much interest by those who know how thoroughly he has investigated the subject he dealt with, and at the conclusion of the paper there was keen discussion of the points set forth.

The following quotation from the Greek teacher Epictetus, said Mr. Ogden, though not exactly a text, was of value to his present purpose as evidence of the Greek attitude of mind, and, with other quotations that would follow, shows how modern discussions of art and architecture might be regenerated.

". . . . Seeming doth not for every man answer to Being; for neither in weights nor measures doth the bare appearance content us, but for each case we have discovered some rule. And here, then, is there no rule above seeming? And how could it be that there were no evidence or discovery of things the most necessary for men? There is, then, a rule. And wherefore do we not seek it and find it, and, having found it, henceforth use it without transgression, and not so much as stretch forth a finger without it? For this it is, I think, that when it is discovered cureth of their madness those that mismeasure all things by seeming alone; so that henceforth setting out from things known and investigated, we may use an organised body of natural conceptions in all our several dealings."

Few architects there are who do not use the word proportion. Some few have given us diagrams setting out buildings on interaxial lines, but none have given reasons that the employment of such lines is the essence of the matter. Interaxial lines spaced a unit apart on plan, forming equal squares, have been used for the plan; and further than this, horizontal lines for the elevations and the spacing corresponding to the ratios of the musical scale. These will be found to give an harmonious, and therefore satisfactory result. The skeleton of interaxial lines would be something like a well-tuned musical instrument on which you may play harmonious compositions should your knowledge of consonance, which to the architect means proportion, be equal to the task. Scientists assert that the ear and the eye, which are only media to the intelligence, are both affected by the same law, *i.e.*, by vibrations. If rhythm and proportion are common to all objects worthy of the name of excellent, and if we could infuse rhythm and proportion into such objects, we should have objects which to the Greek view would be what we term "the beautiful." An ancient Greek would not understand our use of the word "beautiful." "That which is excellent," "That which is for the chief good," are the Greek views. Greek art is based on scientific reasoning. Proof may be found in Plato's "Republic," Aristotle's "Ethics," and many other works (from which Mr. Ogden quoted passages at length).

After quoting passages from Combarieu's work "Music—Its Laws and Evolution," to establish his point that music is based on science and law, and after pointing out that the same laws of proportional numbers are at the basis of chemistry and of the spectrum, the lecturer said that we must find one common rule applicable not only to architecture, but to music, dancing, painting, poetry, and all objects. The one rule is harmony, which springs from rhythm, which in turn springs from measurable and synchronous vibrations. Buildings raised upon a skeleton of lines of proportional spacing, subdivided in measurable proportions down to the smallest ornament, might be the solution that would bring us unity and harmony. Objectors ask, "Should all the buildings in one street be on one unit?" The reply was, "It is desirable that they should have proportional units." He had that night brought before them by means of extracts from unusual sources, theories, and principles, the result of reading outside the beaten track. Further investigation is necessary before the true principles could be gathered together.

He had not yet put up a building without using the method of interaxial lines and the work is set out by rods cut to the length of the unit. For cottages he used a unit of 3 ft. 3 in.; houses, 4 ft. to 5 ft.; schools, 5 ft. 3 in.; works, 10 ft., 15 ft., and 20 ft.; furniture and ornament, some measurable unit of the main unit.

Diagrams would not be given that night; they would be useless unless that which was adduced had been enough to justify continuing the work. We have lost the nature of Greek practice. Can we regain it? The law of numbers rules the world; the properties inherent in vibration, measurable, synchronous, harmonious, rhythmetic, and in consonance, are the essence of the chief good in life.

Professor Capper, in moving a vote of thanks to Mr. Ogden, said that they were grateful for the patient research that the paper was evidence of, and admired the way the lecturer had brought his wide reading to bear upon architecture. He suggested that French Gothic partakes largely of classical unity and proportion, in contrast to the northern Gothic.

Mr. Sellars, in seconding, suggested that beauty depended on fitness as well as proportion, and the two were not always compatible. To a sailor a ship perfect in all her points was beautiful, because she was fittest for her work. In building, beauty was again fitness; when we have fitness we could reduce it to rule, but, with new habits and methods of construction growing up, what becomes of our rules? Rules may be good for the weak, but the strong will drive his coach and six through them.

Mr. Corbett thought that a general rule would be either too wide to be definite, or too narrow to be universally applicable. Greek conditions were different to modern conditions, but even their exactness was more to please their mathematicians than their artists. We must trust our trained sense.

Mr. Oldham felt that art was joy in life; but Mr. Ogden's conclusions were in contradiction to this.

Other speakers were Messrs. Hindle, Harris, Worthington, Wood, and Halliday, and after the discussion the vote of thanks was heartily accorded to Mr. Ogden.

Nottingham Architectural Society.

Through the invitation of Lieut.-Col. Brewill, F.R.I.B.A., the Nottingham Architectural Society spent an interesting hour inspecting the new Territorial Headquarters on Monday afternoon, December 4. Lieut.-Col. Brewill conducted them over the building. As the Society had paid a visit during the early stages of construction it was especially interesting to note the finishing of the work.

The building is to house the five branches of the local Territorials, and the architect (Lieut.-Col. Brewill) has very cleverly arranged separate accommodation for each branch while fitting them into one whole scheme. An electric lift is provided for carrying the heavy equipment to the upper floors, and a system of telephones will be installed whereby every room can be put into instant communication with every portion of the building. The stores will accommodate at least 1,000 rifles and 600 saddles.

Stables are provided for sixteen horses, and in the sick bay is an arrangement for slinging a sick horse if necessary. The front on Derby-road has been built in red sand-faced bricks and Hollington stone. The large drill-hall is 130 ft. long by 80 ft. wide. This large floor-space is entirely free from columns and is covered with a light steel roof of 80-ft. span, with a glass skylight the length of the hall. In this the Keith gaslight has been substituted for electric light, being, in the architect's opinion, more suitable and economical. But even then it will require eight large lamps of 300 candle-power each to light it at night.

The ventilation is through louvre boards in the roof always open. All floors are in Hennebique construction, and average 3 in. thick.

Some of the party afterwards visited the site of the explosion on Derby-road by invitation of Mr. Calvert, the consulting architect.

The afternoon concluded with an inspection of Mr. Mitchell's new garage in Toll-street. In the absence of the architects (Messrs. Booker & Shepherd) Mr. Shelton pointed out the interesting features, which are, briefly, solid steel columns in the garage on the ground floor, a reinforced concrete first floor and a very interesting arrangement of the steel roof trusses due to the peculiar formation of the site, and a suspended lift for motor-cars. In this form of lift there are no guides to obstruct the floor space.

The second meeting of the Designing Club was held the following evening at the Society's rooms, under the chairmanship of Mr. E. R. Sutton, F.R.I.B.A., Vice-President. Four carefully-thought-out designs were submitted for an "Approach to a Public Park."

The visitor, Mr. H. G. Watkins, A.R.I.B.A., who had set the conditions, gave an interesting criticism and placed them as follows:—

1. *Pro bono publico.*
2. Dorian.
3. Carbon.
4. Member for Sark.

The Chairman, in proposing a vote of thanks to Mr. Watkins and the students who had submitted drawings, urged the importance to the students of not only sending in designs, but also attending and criticising them.

The Architectural Association of Ireland.

The annual smoking concert in connexion with this Association was held in the Imperial Hotel, Lower Sackville-street, on the 22nd ult., the chair being occupied by Mr. Page L. Dickenson, M.R.I.A.I., President. One of the most successful reunions of the Association was brought to a close by the assembled company singing "Auld Lang Syne," the accompanists throughout being Messrs. J. Elvery and E. Maiben.

A general meeting of this society was held on Tuesday, the 5th inst., in the Lecture Hall at 15, South Frederick-lane, Dublin. The President, Mr. Page L. Dickenson, M.R.I.A.I., occupied the chair. The minutes of the last general meeting having been read and signed, the Committee's report for the last session was read, and its adoption proposed by Mr. C. H. Ashworth, F.R.I.A.I., who congratulated the Association on the favourable nature of the report and the cheerful outlook for the present session; Mr. J. Geoghegan seconded, and the report was carried unanimously.

Two new members were elected, Mr. W. A. Dixon and Mr. C. D. B. Ward. Professor Scott, M.R.I.A.I., then read an interesting paper on "Byzantine Architecture," illustrated by numerous lantern views of the principal mosques and palaces in Constantinople and Revenna. In the course of his remarks Professor Scott described many of the curious customs existing among the Mohammedans in connexion with their religion and ritual. The lecturer dwelt on the similarity existing between certain mouldings and details found in Byzantine work and those in early Irish architecture.

In proposing a vote of thanks to Professor Scott at the conclusion of the lecture Mr. P. J. Lynch, M.R.I.A.I., laid great stress on the fact that a careful study and wide knowledge of Byzantine architecture was a necessary prelude to the study of Irish architecture. Mr. Lynch deplored the fact that so little attention has been paid in the past to this subject, and exhorted the members of the Royal Institute and the Association to band themselves together to form a renaissance in Irish architecture, to carry on the work so well begun in a bygone age.

Mr. O'Brien Smith briefly seconded the vote of thanks to Professor Scott. In putting the motion, which was carried with acclamation, to the meeting, the President, on behalf of the Association, sincerely congratulated Professor Scott on his recent appointment to the chair of Architecture at the National University.

A notice of a motion to be put to the next meeting was read, having for its object a reduction in the number of members required to form a quorum at special meetings.

Royal Institute of the Architects of Ireland.

The annual general meeting of this Institute was held at the Rooms, No. 31, South Frederick-street, Dublin, on Thursday last week. In the absence of the President, Mr. R. Caulfeild Orpen, B.A., F.R.I.A.I., Vice-President, occupied the chair. There were also present:—Messrs. J. C. Wilmot, L. O'Callaghan, J. A. Geoghegan, F. Hayes, J. H. Webb, T. J. Cullen, F. G. Hicks, C. H. Mitchell, H. Allberry, A. G. C. Millar, P. J. Lynch, F. E. Sparrow, G. L. O'Connor, and C. A. Owen, Hon. Secretary.

The Hon. Secretary read the report of Council for the year 1911. A discussion ensued regarding several of the matters referred to, and the report was adopted on the motion of Mr. Wilmot, seconded by Mr. Lynch.

The Hon. Treasurer, Mr. F. Hayes, submitted his statement of accounts, showing that the Institute continues to be in a sound financial position.

The Chairman read the report of the scrutineers of the ballot for Council, and declared the following gentlemen duly elected for the year 1912:—Messrs. C. H. Ashworth, G. P. Sheridan, J. H. Webb, L. O'Callaghan, F. G. Hicks, H. Allberry, W. Kaye-Parry, A. G. C. Millar, W. A. Scott.

Liverpool Architectural Society.

At the meeting of the Liverpool Architectural Society on Monday, December 4, a paper by Mr. W. H. Ward, A.R.I.B.A., was read, entitled "Renaissance Church Architecture in France," the paper being illustrated by excellent lantern slides. The President of the Society, Mr. Arnold Thornely, F.R.I.B.A., was in the chair, and a vote of thanks to the lecturer was proposed by T. E. Eccles, F.R.I.B.A., and seconded by Mr. Gilbert Fraser, A.R.I.B.A.

Glasgow Technical College Architectural Craftsmen's Society.

At a recent meeting of the Technical College Architectural Craftsmen's Society, Glasgow, Mr. James S. Boyd in the chair, Mr. John Crawford read a paper on "The Duties of a Foreman Mason." After describing the preliminary operations, the importance of accurately setting out the main lines of the proposed buildings, and several methods of doing so were fully explained. Excavations and timbering, and the careful supervision of the bedding and bonding of foundations, walls, and columns were dealt with. Mr. Crawford emphasised the importance of good dampcourses, the ventilation of floors, also panelled and lath and plaster walls, and the building of vents to prevent down draught. The care to be exercised in erecting various kinds of walling, tracery, and circular windows, stairs, etc., was fully dealt with. The lecturer also explained the ordinary routine in building contracts, of ordering, taking delivery, and checking the various materials required.—Discussion followed.

ENGINEERING SOCIETIES.

The Institution of Civil Engineers.

At the ordinary meeting of this Institution on Tuesday, the 5th inst., elections of new members, Associate members, and Associates, transfers of Associate members to members, and admission of students were reported. Five members were elected, *i.e.*:—J. Cadman, D.Sc., Edgbaston, Birmingham; H. W. Firth, Electrical Engineer's Office, Great Eastern Railway, Liverpool-street Station, E.C.; H. E. Mitton, Codnor, near Derby; L. P. D. Taylor, Mortlake; H. Wadale, Gateshead-on-Tyne. One hundred and thirty-three Associate members were also elected.

BOOKS RECEIVED.

THE STORY OF FORD ABBEY. By Sidney Heath. (London: Francis Griffiths. 10s. 6d. net.)

A HISTORY OF ARCHITECTURAL DEVELOPMENT. By F. M. Simpson. (Longmans, Green, & Co. 21s. net.)

THE SOCIETY OF ARCHITECTS:

ALEXANDRIA, ITS PLACE IN ARCHITECTURAL HISTORY.

AT a meeting of the Society of Architects on Thursday, Mr. G. A. T. Middleton, A.R.I.B.A. (Past Vice-President, Hon. Librarian), read a paper, entitled "Alexandria: Its Place in Architectural History," of which the following is an abstract:—

"On account of its geographical position and fine natural harbours, easily made more safe by artificial means, Alexandria has necessarily been the most important seaport of Egypt for many centuries, while it was for a considerable period one of the very greatest cities of the civilised world. This was during, and extended beyond, the fourth important building epoch in Egyptian history, that known as the Ptolemaic, its greatness lasting from the days of Alexander the Great—say, roughly, from 330 B.C.—to the VIIth century A.D. Near as it is to Cairo, there seems to be no evidence that it was a place of importance when the pyramids were building, 4,000 years before that time, nor even during the Proto-Doric or the Theban periods; but at the later date referred to, when there was a renaissance of Egyptian architecture at Edfou and Philæ so closely resembling the Theban work of Karnack and Luxor as not at first acquaintance to be easily distinguished from it, Alexandria was at the height of its prosperity. It occupied a position where many influences met. It was founded and colonised almost entirely by Greeks at first, these being afterwards augmented if not supplanted by Romans; and it traded with all parts of the Eastern Mediterranean by sea, and simultaneously up the Nile with Egypt, and by caravan even with Assyria and Babylonia.

Thus it was the natural meeting-place of many influences, particularly at the time when Greek art was declining and the Roman scarce developed; yet not much is known of it, and the archæologist and the inquirer into the evolution of architectural forms had troubled little about what its ruins might have to tell; for, not once but several times, it has been ravaged and destroyed, and the remains of its former glories are comparatively few, and the actual dates of such fragments as have been discovered can by no means be determined with precision. Even the buildings of which they formed a part can, as a rule, be only guessed at, so complete has the destruction been, and apparently so scant the care taken to record, even approximately, where the remains have been found; the site of the ancient city being now occupied by a modern town, partly Arab and partly European, or submerged beneath the waters of what is called the old harbour (now cased with a sea-wall), while a new harbour with great wharves and quays occupies a large area to the south of it. Excavating and investigation have been unmethodical and spasmodic, and far more frequently undertaken for the purpose of utilising the masonry of former structures for the erection of new ones than for archæological research. Even at the present time a low hill, honeycombed with catacombs, is being quarried away bodily to provide stone for a new quay in the harbour, which is to become the Mediterranean terminus of the Cape to Cairo railway!

In such circumstances it is to the Museum that a visitor naturally turns first for enlightenment; to be met, to a certain extent but not entirely, by disappointment. It contains, it is true, numerous objects, possessing both interests and beauty, arranged with considerable regard to artistic effect; but it is necessary to make one's own deductions from them. Of orderliness in the scientific sense there is little, for, though here and there an attempt has been made to collect statuettes or architectural features into groups, there has been scarcely any effort to differentiate with regard either to probable date or to locality of discovery—in most cases probably unknown. The descriptions attached to the exhibits are silent on these points, having been obviously composed by one who was more enthusiastic as an art critic than as an archæologist, and consisting for the most part of eulogies in French upon the beauty of the object, its contour, modelling and colour, wholly valueless to one in search of knowledge and capable of judging of these things for himself. It is only possible, therefore, to accept the collection as being Alexandrian, and to apply knowledge acquired elsewhere to the double task of first producing some order out of the prevailing chaos, and then discovering in what way and to how great an extent Alexandrian architecture was influenced by what went before it, and how it afterwards influenced what was to come.

The lessons learnt, if not many, are by no means insignificant, but before those of the Museum itself can be fully understood it is necessary to pay a visit to the principal catacombs, which are under the control of the Museum authorities. The central chamber, reached by a spiral staircase from the surface, and cut in the solid rock, is said (on doubtful authority) to be the tomb of Caracalla and his wife. At any rate, its entrance is flanked by indifferent statues of a Roman Emperor and Roman lady; but these are probably of later workmanship than the chamber itself, as are also certain obviously Roman sarcophagi and Roman urns. The architectural and sculptural embellishments of the room and its immediate approach are of the most mixed character imaginable; but they agree in their indications of date, and leave little doubt about the work having been done, most of it, about 200 B.C.

Just as it is not surprising to find purely Egyptian characteristics in the ornament of the catacomb chamber, so is the presence of Greek feeling only what might be expected. Essentially, Alexandria was a Greek Colonial Settlement, if not at one time the greatest centre of Greek civilisation, and the Museum contains more architectural objects of Greek spirit, both in design and execution, than almost any other in the world—all presumably local. Thus the Greek egg and tongue is a common enrichment. It is seen, for instance, on a few Ionic capitals, enriching the echinus in the usual way, while the abacus is similarly enriched with the leaf and tongue, all sharply cut after the typical Greek manner, particularly that of a somewhat later date, such as is found at earliest in the Mausoleum at Halicarnassus (350 B.C.). The shallow character of the volute also suggests late workmanship; it recalls that of the Nereid Monument from Lycia, now in the British Museum, which is generally considered to belong to the Ist century B.C. The Alexandrian examples probably belong to a period between these dates.

So far as the multitude of examples may be taken to indicate anything, however, they give the undoubted impression that the principal Greek work at Alexandria was of the Corinthian Order. It is well known that to the west of Greece, in Sicily and Magna Græcia (Southern Italy), the Doric Order was employed exclusively, while to the east, along the Syrian coast, the Ionic was used as universally. In Greece itself, as at Athens, the greatest buildings were Doric, those of secondary size and importance were Ionic, and only the tiniest and most delicate gems were Corinthian—that is, in the days of independence. Later on, when the Romans ruled, the great Temple of Jupiter Olympius was, it must be admitted, erected in the Corinthian Order.

But the recognised examples of Greek "Corinthian" are extremely few, so few that they can be numbered on the fingers of one hand. The Choragic Monument of Lysicrates, very small, has generally been considered the most typical, till the discovery of the more beautiful capitals of the internal Order of the Tholos at Epidaurus. Both of these examples have tendril volutes springing from acanthus leaves, and so probably has the elliptical capital, of apparently late workmanship, which was brought from the site of the Temple of Diana, at Ephesus, and is now in the British Museum. As a rule, in the known Roman examples of Corinthian capitals the tendril is stiffened and strengthened till it has more the appearance of a voluted leaf—so much so, that the gradual evolution from it, through Romanesque work, of the French "crochet" capital has been traced, in which the leaf is that of the hart's-tongue fern when partly open.

Is it possible that Alexandria was the real home of the Corinthian Order, and that the tendril volute was a mere local variation, beautiful but not essential to it? In the numerous examples in the Alexandrian Museum the tendril volute is never found, but it is replaced by a broad voluted leaf at the corners—though tendrils are used for the caulicolæ. The capital in this form is exquisitely beautiful and structurally strong enough for employment on a large scale—and several of the numerous examples

are quite large; while the development from it of the Roman form is natural and easy.

There is only one Doric capital in the Museum, and that is of exceedingly late Greek character, and carved in the local white stone, with a shallow abacus and echinus, and with annulets replaced by flat bands, like those found just below true Egyptian capitals of all known types and dates. Again, it is possible that an intermediate form is recognisable between the types of Greece and Rome, but the evidence is insufficient to base a theory on. Certainly there is another similar capital near Alexandria, lying on the beach some half-mile to the south of Nelson's Island and the Bay of Abou Kir, so like this one in size and workmanship, so far as can be judged (for it has suffered much from the action of sea-water), that it might well have been another of the same range as that in the Museum. No more than this could be said, if it were not for abundant evidence that here, upon the shore, some 15 miles from Alexandria itself, there was at one time a place of considerable size, possibly a pleasure resort (Canopus is known to have existed somewhere in this neighbourhood); for the shore-line is broken up into a series of small, well-protected and almost landlocked bays with sandy beaches separated from one another by low headlands of coral rock, forming safe and delightfully picturesque bathing-places. Overlying the coral there is a softer rock, little better than compacted sand, which forms a low cliff, nearly vertical, and against this as a backing there have been buildings in the Roman period, extending out towards and in some cases into the sea. For a length of close upon a mile there are constant evidences of this, the escarpment being in some places given a facing of Roman tiles (or bricks), sometimes plastered on the surface, and sometimes of squared masonry; while in other places cross walls of the same materials project from the cliff towards the sea; and in yet others, and much more frequently, the coral bed has been worked in the solid into the shape of rooms with intervening walls, the present level of the floors being sometimes below and sometimes above the water level—which varies little, for there is scarcely any tide.

Most of these indications of a Roman settlement are fragmentary, and need careful surveying for their elucidation, but upon one of the promontories there is something more, the remains of what was obviously once an important building. Close to it, upon its north, there lies the Doric capital already referred to, having a diameter of 20 in., and a little further north again is a broken drum of a column, the approximate diameter of which is 22 in., of a beautiful blue marble veined with white. On the other side of, and almost adjoining it to the south-east, half-surbmerged in water, are great masses of worked granite, having every appearance of being portions of an attached colossal statue of Ptolemaic Egyptian character. Casual inspection from the shore could determine no more than this, though one fragment looked as if it were reeded; a well-equipped party might spend some time in discovering more among the surf. So, too, it is with the building, of which a few rough dimensions only could be taken by a solitary individual having only a 2-ft. rule in his pocket, and but a short hour or two at his disposal. There would even be some danger in making a close examination of the passages through the apse walls, considering how the sea pours through; but the accompanying plan of half of this extraordinary place will indicate, with the notes made upon the spot, that it is worth close investigation. It is all submerged, it must be remembered, except the "walls," and these are not built but formed of the solid coral rock, out of which the chambers and channels have been hollowed; and the chambers are cut to a greater depth seawards than towards the shore, where they eventually rise above sea level, as if they had been the ante-rooms to an enclosed sea bathing establishment.

There is a possibility, it must be admitted, that these remains (which can hardly be called ruins, being little more than rock-cut foundations) were of post-Roman origin, with the exception of the colossal statue already mentioned; for even after the fall of Rome, Alexandria retained a great amount of its importance, rivalling Constantinople for a considerable period as the centre of the Christian faith—as it still is the metropolis, if there be one, of the Coptic branch thereof. Thus the mere presence of Roman bricks regularly built up in walls, and of Roman masonry, can be taken as definite evidence only that the work was not carried out before the advent of the Romans. On the other hand, such evidence as there is of architectural work during the period known as the Byzantine is wholly to the effect that Alexandria was then, in an architectural sense, completely dominated by the great city on the Bosphorus. This is seen in the Museum, where there are several fine Byzantine columns and isolated capitals, equal in all respects to those of Constantinople, Ravenna, and Venice, and identical in spirit with such as would be found in either of those acknowledged Byzantine centres, of any date between the VIth and XIth centuries of the Christian era. There are, for instance, Ionic columns, with Byzantine dosserets resting on their capitals, carved with the Maltese Cross; but with the carving raised above the general surface and not sunk beneath it, as is almost invariable in Byzantine work elsewhere; but in the capitals themselves the dart replaces the tongue, and the volutes are crude. Perhaps—it is only a suggestion with no proof to support it—these capitals belonged to one of the earlier Christian buildings, of a date even earlier than that of the foundation of Constantinople; for it is difficult to believe that the Byzantine style sprang into existence, without evolution by gradual degrees, complete and perfect, with the building of that city and the erection of its great domed churches. And Alexandria, alone of all the great towns of the East, can reasonably be supposed to have been the place where any such gradual change took place—subject, as it was, to many influences itself.

That for which Alexandria stands alone is, in character, late Greek or early Roman as some might call it, but in greater truth Alexandrian, typified by a form of Corinthian capital practically unknown elsewhere, but common in the Egyptian port, as the numerous examples in the Museum indicate without doubt. It is, too, one of the most beautiful forms of capital known, beyond the beauty of that generally known as the Corinthian—with little evidence that it was ever used at Corinth—which it resembles in all respects except the use of leaf volutes at the angles in place of tendrils. Thus there surely is at least a doubt whether Alexandria was not the real home of the Order. If so, the name of Alexandrian should be given to it in place of Corinthian, and the Alexandrian form should be accepted as the general type. At least its recognition, and its use with such modifications as might be called for under individual circumstances, is fully justified in modern work which apes the Classic.

ROYAL ACADEMY SCHOOLS.

THE following is the list of prizes and prize-winners for this year:—Historical Painting: The City of Refuge—Gold Medal and Travelling Studentship (200*l.*), Margaret Lindsay Williams. Landscape Painting: Storm Clearing off on the Skirts of a Wood—Turner Gold Medal and Scholarship (50*l.*), Gladys M. Clark Kennedy. Landscape Painting: A Lock on a River or Canal—Creswick Prize (25*l.*) and Silver Medal, Joan Joshua. Design for the Decoration of a Portion of a Public Building: Winter—First Prize (30*l.*) and Silver Medal, Margaret Lindsay Williams; Second Prize (10*l.*) and Bronze Medal, Florence Margaret Walden. Design in Monochrome for a Figure Picture: Samson Pulling Down the Pillars in the House of Dagon (not to be treated as a single figure work). Judges, Chap. xvi.—Armitage Prizes, First (30*l.*) and Bronze Medal, not awarded; Armitage Prizes, Second (10*l.*) and Bronze Medal, Katherine Frances Clausen. Composition in Colour—Prize (10*l.*) and Silver Medal, James Williams. Cartoon of a Draped Figure: Agrippina Carrying the Ashes of Germanicus—Prize (25*l.*) and Silver Medal, Madeline Emily Green. Painting of a Figure from the Life—First Prize (10*l.*) and Silver Medal, Horace Edward Quick; Second Prize, Bronze Medal, Alice Adrienne Nash. Painting of a Head from the Life—First Prize (5*l.*) and Silver Medal, not awarded; Second Prize, Bronze Medal, Madeline Emily Green tied with Charles Vincent Holder, who, having won the prize before, was disqualified. Perspective Drawing in Outline (open to painters and sculptors only): One of the Piers near the Queen Victoria Memorial in the Mall—Prize (5*l.*) and Silver Medal, no competition. Set of Four Drawings of a Figure from the Life—First Prize (15*l.*) and Silver Medal, Frank Crown Mitchell; Second Prize (10*l.*) and Bronze Medal, Horace Edward Quick, tied with Leopold Lemage Swain, who was disqualified, having received the prize before. Set of Three Studies of Drapery—Silver Medal, Grace Mary Hawkins. Composition in Sculpture: Rescued—Gold Medal and Travelling Studentship (200*l.*), John Angel. Model of a Design: An Act of Mercy, to include not less than two figures—First Prize (30*l.*) and Silver Medal, Gilbert Ledward; Second Prize (10*l.*) and Bronze Medal, Newbury Abbot Trent.* Model of a Bust from the Life—First Prize, Silver Medal, Robert Peter Baker; Second Prize, Bronze Medal, Chas. Randle Jackson. Design for a Medal: A Design for a Medal to Commemorate the Coronation, with an Enthroned Figure on one side and an Allegorical Design on the other.—Prize (5*l.*) and Silver Medal, Edmond T. Wyatt Ware. Set of Three Models of a Figure from the Life—First Prize (15*l.*) and Silver Medal, Robert Peter Baker; Second Prize (10*l.*) and Bronze Medal, James Booth.* Design in Architecture: The Hall of a City Company—Gold Medal and Travelling Studentship (200*l.*), Alan Binning. Set of Architectural Drawings—First Prize, Silver Medal, Walter Llewellyn Clark; Second Prize, Bronze Medal, Augustus Gaffett Bryett. An Architectural Design—Prize (20*l.*) and Silver Medal, James Mitchell Whitelaw. Set of Drawings of an Architectural Design—First Prize (15*l.*) and Silver Medal, Verner Owen Rees; Second Prize (10*l.*) and Bronze Medal, Cyril Farey. Perspective Drawing in Outline (open to architects only): The "College" at Westminster School, containing the Dormitory exclusive of the Sanatorium at the south end, but inclusive of the entrance and stair at the north end—Silver Medal, James Gough Cooper. Original Composition in Ornament (open to architects only): Prize (5*l.*) and Silver Medal, Thos. Penburthy Bennett. Architectural Design with Coloured Decoration: The East End of a Memorial Chapel—Silver Medal, no competition.

Landseer Scholarships in Painting and Sculpture, of 40*l.* a year each, tenable for two years, have been awarded—in Painting to Archibald G. Barnes and Katherine F. Clausen; in Sculpture, to Robert P. Baker; and for one year in Sculpture to James Booth and Alfred Wilkinson.

GENERAL NEWS.

Professional Announcement.

Mr. W. L. Lucas is moving into new offices at 9, Great George-street, Westminster.

Architectural Assistants at the Office of Works.

In Friday's Parliamentary Papers Mr. Snowden asks the Hon. Member for Southampton, as representing the First Commissioner of Works, whether, before any steps are taken to place any of the class termed architectural assistants engaged in the Office of Works on the established list, the desires of all who are eligible will be ascertained, so that all of the class shall have an opportunity, if they so desire, of being placed upon the established list.—Mr. Dudley Ward says the answer is in the affirmative.—Mr. Snowden further asks whether the Treasury regard the technical certificate of the Board of Works Commissioners, granted to each member of the architectural assistants, as being equivalent to the certificate granted by the Civil Service Commissioners to the class engaged upon similar work and termed assistant architects; and if it was intended to carry the same privileges of establishment, equivalent pay, superannuation, and regular annual increment.—Mr. Dudley Ward replies in the negative to both questions.

The Aldwych Site.

The House of Representatives and subsequently the Senate of the Australian Commonwealth, according to a message through Reuter's Agency, have approved the decision of the Federal Government to purchase the freehold of the eastern portion of the Strand-Aldwych site for the sum of 364,000*l.* It is proposed to erect upon the site a building for the official headquarters of the Commonwealth, and probably also of some of the Australian States. The cost of the building is estimated at 223,000*l.*

* Disqualified, having received the prize before.

Balliol College Chapel.

It is understood that the Master and Fellows of Balliol College have decided against the proposal to rebuild the College Chapel, against which Mr. Norman Shaw, R.A., Mr. Basil Champneys, and others have protested.

The International Fire Service Council.

A general meeting of the International Fire Service Council will be held on the occasion of an International Fire Service and Fire Prevention Congress at St. Petersburg and Moscow from May 25 to 30, 1912 (new era), to be organised by the Imperial Fire Brigades Federation of Russia, and held under the auspices of the Council.

Building on Consecrated Ground.

In the Court of Arches on December 8 Sir Lewis T. Dibdin, D.C.L., Dean of Arches, sitting in the Church House, Westminster, delivered judgment in the appeal from a judgment of the Chancellor of the Gloucester Diocese refusing a faculty for the erection of a church school upon consecrated land, not used for burials, in Holy Apostles parish, Charlton Kings, near Cheltenham. Sir Lewis Dibdin decided to allow the appeal—without order as to costs—upon the grounds that, whilst land once consecrated cannot, in general, be used for secular purposes, in the particular circumstances before him the sufficient ecclesiastical purpose and use of the proposed school buildings were, in his opinion, established.

London University.

The Principal of London University has received from the Chancellor, Lord Rosebery, a letter written to him by a gentleman, who wishes to remain anonymous, offering to erect at University College a building for:—

(*a*) The combined School of Architecture (resulting from the amalgamation of the schools at present separately conducted at University College and King's College), together with the following—so far as a sum of 30,000*l.* will suffice—viz.:—

(*b*) Studios for the teaching of sculpture and the rearrangement of the School of Fine Art; and

(*c*) The Department of Applied Statistics, including the Laboratory of Eugenics.

Mr. F. M. Simpson, professor of architecture, has been appointed architect for the new chemical laboratories to be erected at University College.

The Carpenters' Company.

The following list of candidates successfully passed the Company's Examination in sanitary building construction held recently:—Gold medal and Clerks' of Works Association prize of five guineas, Thos. J. Welsh; silver medal and certificate, L. S. R. Hart; bronze medal and certificate, L. Barnard, F. Boxall, Wm. Clarke, H. J. Hollands, A. C. Huffell, George Priestley, and G. E. Vincent; certificates, J. M. Brown, R. F. Bryer, G. E. Burr, C. E. Evans, J. E. Fell, A. E. France, W. E. Hall, J. W. Judson, and A. Mitchell. It is interesting to note that a large proportion of the candidates came from the provinces, and even the more distant ones.

Diaries for 1912.

Messrs. Hudson & Kearns, Ltd., Hatfield-street Works, Stamford-street, S.E., have sent us specimens of their registered date indicating blotting pads for 1912. These blotting pads are admirable productions, and leave little or nothing to be desired. We may draw attention to the pads, 7 and 8A, both of which are very serviceable and sensible blotting pads and diaries combined.

The Saxon Portland Cement Company, Ltd., Cambridge, have sent us a copy of their neat little pocket diary for 1912. It includes an accident insurance coupon.

COMPETITION NEWS.

Technical Institute, Cardiff.

The awards in this competition are as follows:—First premiated design, Messrs. Ivor Jones and Percy Thomas, of Cardiff; second premiated design, Messrs Cooper & Slater, of Blackburn; third premiated design, Mr. J. Myrtle Smith, of London; fourth premiated design, Messrs. Spalding & Myers, of London.

The designs are to be exhibited at the City Hall, Cardiff, from Monday, the 18th, to Friday, the 22nd inst.

Cottage Hospital, Wellington, Shropshire.

Of the competitive designs submitted for this building the assessor, Mr. W. L. Bernard, F.R.I.B.A., of Bristol, has awarded first place to those prepared by Mr. Leslie T. Moore, A.R.I.B.A., of Raymond-buildings, Gray's Inn, W.C.

Sheffield, Woodseats U.M. Church.

In the limited competition recently held for this new building Messrs. George Baines & Son, architects, 5, Clement's Inn, Strand, London, W.C., were successful.

Chelsea Town Hall Decorations.

Mr. Charles Sims, A.R.A., Mr Frank O. Salisbury, Mrs. Sargent Florence, and Mr. George Woolway are the successful artists in the competition for designs for the decoration of the large hall in the Chelsea Town Hall. The inception of the scheme was due to Mr. Christopher Head, late Mayor of the borough. Mr. John S. Sargent, R.A., Mr. P. Wilson Steer, and Mr. E. A. Rickards, F.R.I.B.A., adjudicated. Thirty-seven painters competed, including Mr. Young Hunter, Mr. Lambert, Mr. Jamieson, Mr. Robert Fowler, Mr. Leist, and Miss Emily Ford. An article on the subject will appear subsequently. We understand that a further competition will be held for other decorations.

Marylebone Municipal Buildings Competition.

In our review of this competition we did not mention that the assessor, Mr. Hare, also noted as excellent designs, worthy of commendation, the following:—No. 76, Mr. William Whitehead; No. 99, Messrs. Edwin T. Hall & E. Stanley Hall; No. 121, Mr. Matthew J. Dawson; No. 126, Messrs. H. Townshend Morgan & Alan Bruce; No. 157, Sir A. Brumwell Thomas.

Stock Exchange, Toronto.

January 2 next is the day for receiving drawings, limited to architects in Toronto, for a Stock Exchange building. Mr. F. S. Baker, F.R.I.B.A., is the professional assessor.

LONDON COUNCILS.

Barnet.—Sanction has been received from the Local Government Board to the borrowing of 2,788*l.* towards the paving of the High-street. Plans have been passed for Mr. Cude for alterations to premises in High-street. Messrs. Scott & Fraser have lodged plans for the erection of a conference hall at the corner of High-street and Fitzjohn-avenue for the Rev. H. Ensor.

East Ham.—The following tenders have been accepted:—Messrs. J. H. Sankey & Son, Bangor slates for swimming-bath, 9*l.* 15*s.* 6*d.* per 1,200; Mr. A. Sambridge, laying slates and fixing ridge for swimming-bath, 4*s.* 3*d.* per square and 2*d.* per foot run, respectively; Messrs. Doulton & Co., terra-cotta pier for swimming-bath entrance, 14*l.* The following plans have been passed:—Mr. P. Cornish, four houses, St. Olave's-road; Mr. H. C. Seymour, ten houses and shop, Haldane-road; Mr. F. Hamlett, buildings on site of Nos. 9 and 11, Cotswold-gardens; Mr. W. Stewart, additions to "General Gordon," Albert-road, North Woolwich, also house and shop, Mitcham-road; Mr. G. Clark, ten houses, Wallsend-road.

Friern Barnet.—The following plans have been passed:—Mr. J. J. Wilkinson, three houses, Cromwell-road; Mr. A. Collins, alterations to "Fairstead," Friern-lane; Mr. H. Johnson, alterations to Mickledore, Athenæum-road.

Greenwich.—The tender of Mr. William Bailey, 40, Pelton-road, has been accepted, at 212*l.* 15*s.* 6*d.*, for carrying out decorative and repair works at the late Lee Board of Works Offices, Old Charlton. The north side of Nelson-street is to be repaired with York paving at an estimated cost of 156*l.* A portion of Pelton-road is also to be repaired with granite at 150*l.* The tender of Messrs. Henry Woodham & Sons, Sangley-road, Catford, S.E., has been accepted, at 857*l.*, for forming and paving as a new street part of Bramshot-avenue. A plan has been lodged by Messrs. Gunning & Son for ten houses in Anchor and Hope-lane.

Hackney.—The sewer in Richmond-road is to be constructed for a length of about 517 ft. with 15-in. glazed stoneware pipes at an estimated cost of 250*l.* Electricity mains are to be extended at an estimated cost of 2,200*l.* The tender of Mr. G. J. Anderson, 26, Lower North-street, Poplar, has been accepted at 431*l.* 7*s.* 3*d.*, for paving part of Moundfield-road as a new street. The edge kerbs and flat channels are to be done with Cornish granite. The tender of the Acme Flooring and Paving Company (1904), Ltd., has been accepted at 3,348*l.* 7*s.* 1*d.*, for paving the carriageway of a portion of Southgate-road with Acme sectional jarrah wood-blocks 3 in. deep. This includes the laying of the foundation and repair and maintenance for seven years. The following plans have been passed:—Mr. J. Ellis, motor garage rear of No. 130, Shackwell-lane; Mr. A. J. West, additions to factory rear of No. 38, Albert-road, Dalston; Mr. E. E. Fowler, additions to factory, Bull-alley, near Clevedon-street, Stoke Newington Common; Mr. T. Critt, alterations and additions, No. 55, Tottenham-road.

Hammersmith.—Plans have been passed for Mr. A. P. Killik, for the erection of shops on the site of Nos. 162, 164, and 166, King-street; also for Mr. Thomas R. Somerford, for shops on the site of Nos. 150, 152, and 152*a*, King-street.

Hemel Hempstead.—At a recent meeting of the Joint Hospital Board it was decided to invite Mr. Ivon G. Mead, Hemel Hempstead, to act as architect for the erection of the proposed new hospital.

Hendon (Urban).—The Surveyor has been instructed to prepare plans for the construction of surface water-drains in Sunnyfields-road and Sunny-gardens, at an estimated cost of 1,326*l.*, and in Green-lane at 703*l.* Kerbing and paving works are to be carried out to the footpath on the east side of Brent-street at an estimated cost of 268*l.* The following plans have been passed:—Mr. F. Howkins, twelve houses, Hamilton-road, Woodstock Estate; Hampstead Garden Suburb Trust, Ltd., additions to "Homesfield," off Erskine-hill; Mr. V. L. Reynolds, eight houses, Hodford-road; Mr. Edwin Evans, six houses, "The Crest," Brent-street; Mr. Edward Streather, twenty-two houses, Hollswell-road; Mr. R. V. Hart, eight shops, Golder's Green-road; Mr. A. J. Edmondson, four houses, The Riding; Mr. J. Wright, offices, etc., Ramsey and Argyle roads; Second Hampstead Tenants, Ltd., eight flats, Addison-way; Mr. G. H. King, five houses, Alexandra-road. A plan has been lodged by Mr. S. J. Aish for fourteen houses.

Poplar.—Paving works are to be carried out by the Surveyor during 1912 at an estimated cost of 10,000*l.* A plan submitted by the Star Manufacturing Company for the erection of new workshops in Davis-street has been approved.

South Mimms.—Tenders are to be invited by the Rural District Council for laying an 18-in. pipe in Station-road, Potters Bar, at an estimated cost of 122*l.*

Stepney.—A new 9-in. glazed ware pipe sewer is to be substituted for the existing sewer in a portion of Varden-street, Mile End, Old Town, at an estimated cost of 175*l.* No objection is to be raised to the proposal of Mr. J. G. Oatley for the erection of a building in Cotton-street.

Wandsworth.—A portion of the footpath on the southern side of Wimbledon-road, Balham, is to be paved with artificial stone, and the kerb and granite sett carriage entrances relaid, at an estimated cost of 423*l.* The pavement in front of No. 47, Streatham-hill is to be paved with artificial stone at an estimated cost of 70*l.* Tenders are to be invited for carrying out repairs to Beaumont-road, Southmead-road, and a part of Augustus-street, Southfield. The tender of Messrs. E. & E. Iles has been accepted for paving part of Lessingham-avenue, Tooting (footpaths with Aberdeen adamant paving); as has also the tender of Mr. Thomas Adams for paving part of North-place, Southfield. The footpaths in this case are to be paved with Aberdeen adamant and kerbed with Cornish granite. They have further accepted the tender of Messrs. E. Parry & Co. for paving Steep-hill, Streatham. Cornish granite is to be used for the kerbs and Victoria incurated paving for the footpaths. Plans have been passed for Mr. G. R. Fletcher for additions to St. Simon and St. Jude's Roman Catholic Church, Hill-side-road, Streatham; also for Mr. A. H. Batley for a cinematograph theatre and four shops, Mitcham-road, Tooting.

Watford (Rural).—Plans have been passed for Messrs. J. Dickinson & Co., Aldenham, for an extension to the reel stores at Holmfirth Mills, also for extensions to the book department at Apsley Mills.

Watford (Urban).—The following paving works are to be carried out at the estimated costs stated:—One side of Malden-road, 835*l.*; part of Lower Paddock-road, 178*l.*; footpath, King-street to Wiggen Hall-road, 104*l.* Paving works are also to be carried out in fourteen other roads, and application is to be made to the Local Government Board for sanction to borrow 5,536*l.* to carry out the work. Tenders are to be invited for carrying out the work

of the Balmoral-road sewerage and the Callow Land storm-water drainage. Application is also to be made to the Local Government Board to borrow 2,134*l.* for the erection of a public convenience in Church-street. The tender of Messrs. Froude & Dawson has been accepted at 25*l.* 4s. for the supply of 6,000 Hickman's Stourbridge firebricks. Plans have been passed for the Trustees of St. John's Institute for a new parish hall in Escourt-road.

West Ham.—The following plans have been passed:—Mr. J. R. Moore-Smith, alterations and additions to St. Peter's Church Hall, Neville-road, Upton Park; Mr. A. Single, rebuilding workshop and warehouse, rear of No. 29, Hubbard-street, West Ham; Mr. A. Smith, alterations and addition to Aerated Candy Company's premises, Tramways-avenue, Stratford.

Wimbledon.—Repairs are to be carried out to the carriageways of six streets, and to the footways of a portion of St. John's-road, at a total estimated cost of 664*l.* The tender of the Improved Wood Paving Company, Ltd., has been accepted at 85*l.* for paving the margins of the carriageway of a portion of Merton-road. Tenders are to be invited for the enlargement of the Administrative Block at the isolation hospital. The Borough Surveyor has been directed to prepare an estimate of the cost of making-up the back passages of each block of houses on the Ashen-grove Estate with granolithic paving laid *in situ*, and with slab paving. Plans submitted by Mr. P. E. Story for additions to the Court House, Queen's-road, and by the Temperance Billiard Halls, Ltd., for a billiard hall in Merton-road, have been passed. Mr. R. J. Thompson has lodged a plan for five shops in Hartfield-road.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday in the County Hall, Spring-gardens, S.W., Mr. E. White, Chairman, presiding.

LOANS.—The Finance Committee recommended and it was agreed that a loan of 10,000*l.* should be made to the Hammersmith Borough Council for electricity undertaking, and a loan of 1,236*l.* to the Westminster City Council for contribution towards street improvement.

NEW SCHOOL.—It is proposed to erect a new school on a site in Marylebone, to provide accommodation for 768 children.

THEATRES, ETC.—The following drawings have been approved by the Theatres and Music Halls Committee:—

Camden Theatre, High-street, Camden-town—construction of a permanent cinematograph enclosure.

87, High-street, Notting Hill (Electric Palace)—provision of a rewinding-room.

London Coliseum—minor alterations to the dressing-rooms and offices.

London Palladium—adaptation of certain rooms in the basement for use as dressing-rooms.

The Playhouse—new stage entrance.

Royal Academy of Music, Marylebone-road—provision of additional lavatory accommodation.

Surrey Vaudeville Theatre, Blackfriars-road—alterations and additions to stage electrical arrangements.

A new cinematograph hall is to be erected on a site in High-street, Fulham, adjoining the Territorial drill-hall.

CORRESPONDENCE.

National Insurance.

SIR,—I have been hoping and expecting some Member of Parliament understanding finance and business, or some leading member of the builders' societies, or one of my own profession who is a leader in the practice of architecture as well as the art of it, would take up with vigour and ability the matter of the National Insurance Bill of the Government, showing how it would affect the great business of building in this once flourishing country of ours. But there seems no stir. All are expecting, I suppose, it will "pan out all right," as usual, without "fussing."

I write solely with a view of getting some able man amongst the whole of those engaged in the building trade, including, of course, architects who get their livelihood from it, to devote some of his ability to the great subject before it is too late.

Would not all of us agree that the last few years have been very bad ones for the generality of architects and all connected with the building trade? Is it not a fact that architects as a profession have had less work in their offices? Is it not also a fact that builders find it most difficult, in ordinary building competitive estimating, to obtain a contract giving fair and reasonable profits? Or, in other words, is it not a reality that competitive estimates are cut so low as to leave no profit to contractors if the contract is needed so as to keep the shops going, waiting for better times?

The reasons for all this are probably manifold. Among the reasons are, however, two prominent ones. Firstly, the unrest in financial confidence raised by the land taxes, accompanied with threats of these being "only a beginning"; secondly, the reaction of this unrest, with silly and untruthful talk about the "idle rich," amongst the working-men who get more pay for less work than formerly.

(Let me insert here in parentheses that no one objects to workers getting the best of wages if they will only give the best of their capacity in return.)

If the above is to-day the condition of the building trade with the want of confidence in financial circles, whence must come our employment, what will be the state of things if the National Insurance Bill becomes law? Is it thought likely the working-classes will quietly have threepence or fourpence taken weekly from their wages, possibly for their own benefit, but certainly for the benefit of the unfortunate ones? There will be strikes and threats of strikes against any deductions, which, even in the very best results, must make builders' expenses greater than ever. Thus are the expenses of buildings increased, which, in plain English, means there will be fewer buildings erected, reacting to the detriment and loss of architects, builders, and workmen.

In this Insurance Bill the workpeople provide a part, the employers a part, and the State a part. "The State" is only the taxpayer, and the biggest taxpayer individually is the employer, so the employer pays two parts. It will end in the employer paying the three parts. But if he pays in the main only the two parts, the cost of building by him must necessarily be increased. Less building will ensue in any case.

Further, by the want of the old confidence in the finances of the Government undertakings the price of Consols is lower than ever. Much of the reserves of most companies—insurance companies, banks, etc.—have been invested in Consols. Consequently, if Consols, by unwise legislation, get lower and lower, the value of these reserves get lower and lower, and the balance has, in sound finance, to be provided out of the margins or profits which might, and to a great extent would, be in hand for expenditure in buildings. On this head turn, for example, to a great Government Department, the Savings Bank. There we have a deficit by the reduction in the price of Consols (on account, to a great extent, of broken confidence in Government proposals and in reduced security) of over forty millions sterling, and this would have to be found by the taxpayer if the accounts were called in. But what has the price of Consols to do with building? A great deal, for if the great lending companies are losing in the value of their reserves, reducing their spending and their lending in consequence, the building trade is one of the very first to suffer.

Now let me return to the Insurance Bill. It is to be worked greatly through the friendly societies. It costs these societies to work their present business from 25 to 45 per cent. in expenses. And this new compulsory National Insurance business will presumably cost proportionately almost the same, say, an average of 30 to 35 per cent.

It is computed that there will be 16,000,000 contributors, each one of which will need a separate ledger account. Just think of it. Who is going to pay for this work? At 30 per cent. the cost will be 5,000,000*l.* per annum, and this, as well as the weekly taxation per head, is to come out of the taxpayers also, which means mostly the employer. How can the building trade bear its proportion of this additional taxation and burden and have any of its old prosperity returnable to it?

Will not some energetic and able man take up the subject, or will not some enterprising building newspaper use its power to have a comprehensive, clear, definite protest made by the entire profession and trade against this extra burden being laid on business enterprise?

I appeal to you, the architectural profession and the building trade generally, to be doing something before it is too late, and to make our united voice heard. CHAS. HEATHCOTE.

False Economy.

SIR,—Your article of December 1, entitled "False Economy," may perhaps lead house-owners to a few salutary conclusions:—

(1) That bricks and mortar are, of their very nature, a "wasting" security, for which prudence demands a sinking fund, so that the capital value of the building may be replaced in, say, sixty years' time. Thus, assuming a house and garden to be let for 100*l.* per annum, the value of the building itself being 1,200*l.*, if the owner sets aside 7*l.* 7s. per annum to form a sinking fund at 3 per cent. compound interest, the capital cost of the house will be recouped in sixty years, by which time the utility of the original structure is probably exhausted. Owners have only themselves to blame if they treat rentals as permanently secured net profits and make no provision for the inevitable depreciation.

(2) That great foresight is needed in house design to avoid undue or accelerated depreciation. Freaks and crazes are to be shunned; the fashion for excessively low rooms is obviously only a passing one; tiny windows which produce charming picture-postcard effects from the outside are not likely to remain fashionable for long, in defiance of common sense, for, after all, common sense is the tortoise that in the long run outstrips that rapid and brilliant artist the hare.

(3) That especial care and skill are needed in building a large house in poor surroundings if heavy loss is to be avoided.

I have before me a newspaper cutting describing the recent sale of a "magnificent modern house," containing twenty-five large rooms, an organ gallery, range of stabling, etc., all built at great cost in a squalid neighbourhood near the docks. It fetched at auction a sum representing about one-third of its original cost, and a better result could hardly have been expected in the circumstances.

Now, one would have thought that a mansion of this type in such a neighbourhood might well have been built with an eye to the future, so as to permit of ready subdivision when its first use was exhausted, and in many like cases architects might profitably tax their brains to design a house which, while providing roomy quarters for the first owner, should lend itself readily to conversion into smaller dwellings when the surroundings have altered.

That such a scheme presents no insuperable difficulty I could prove by quoting the case of two old country houses the effective life of which has been indefinitely prolonged by a cleverly-contrived subdivision.

C. H. B., F.S.I.

The R.I.B.A. and the Associates.

SIR,—In the letter of "Associate R.I.B.A." in your last week's issue complaining of the neglect of his class by the Council of the Institute he seems to lack the courage of his opinions, for he does not make any practical suggestion for carrying out his ideas.

The whole and blunt truth of the matter is that nearly all the self-nominated members of Council take no broad interest in the general welfare of the profession; no businesslike methods are adopted for the "betterment" of the members or their status in the world, only petty domestic matters are entertained, apparently for the benefit of "Members of Council." But surely something more is expected from them than merely appointing each other as "professional assessors" (with large fees) or nominating well-known men as competitors for important works?

This state of affairs is due entirely to the want of interest shown by the general body of members in the affairs of the Institute; men who are always complaining, outside, over real or supposed evils, but who have never the courage to attempt to remedy them and show fight—fight to obtain a more representative Council, a body of active, earnest business men who would put life into the Institute affairs and who would try to raise the status of our noble profession and make it respected by public opinion; but this will never happen thoroughly until we obtain Registration.

Year after year the question of Registration (to which the Institute is pledged) is postponed and shelved for some reason or other—first for a new Charter, then to form that hermaphrodite class called "Licentiates," now again to obtain an amended Charter to allow members of a more pushing and rival society to enter into our gates; but yet nothing really useful has been done, and nearly all the old family circle are sitting smugly round the Council Board enjoying all the good things the architectural larder can supply.

Some few years ago a revolution took place through the efforts of a "Registration Committee," formed from among the Fellows and Associates—to which Committee I had the honour to belong. Thanks to that Committee, we were enabled that year of its existence to elect a good working Council; but, alas, this wholesome influence soon died out and we all got into the old milk-and-watery methods that we suffer from to-day! Drift, drift—a noble ship with a sleepy crew!

As the Associates largely outnumbered the Fellows, nearly two to one, it is only reasonable now that they should be equally represented on the Council, and I intend bringing forward a resolution to this effect at the next business meeting of the Institute on January 8, 1912, and to also propose that the so-called "House List" issued by the Council, wherein they nominate each other for election or re-election, be abolished, and I rely on every Associate who can to attend that meeting and suppport that resolution.

HORACE T. BONNER.

SIR,—It was with pleasure that I read the letter by "Associate R.I.B.A." dealing with the new regulations with regard to "Lic.R.I.B.A." which appeared in your last issue.

I fully concur with the views expressed therein. The R.I.B.A. Council seem to ignore entirely all the claims of their Associate members, and no one who has attended any of their meetings can fail to observe that it is the feeling and wish of the select few which either carries or rejects a proposal.

Needless to say, this "clique" is devoid of "Associate members." Cannot the Institute, as represented by the Council, be persuaded to descend occasionally from the ethereal to the practical, and in place of learned treatises on the "Influence of Egyptian Architecture on Modern House Planning," and such ultra-interesting topics, to give a little consideration to the problem of A.R.I.B.A.'s who have hard work to keep themselves in shoe-leather?

After a course of more or less arduous study a candidate who satisfies the examiners of the Institute is allowed, for the sum of 2*l.* 2*s.* per annum, to consider himself an Associate of that body. He is then shelved entirely, and only considered when his subscription is in arrears.

Surely it is not unreasonable that an Associate who has become a member by ways other than by the back-door should demand from his Institute some sort of consideration. We are not all shining lights in the profession, but we are the backbone of it when it is a question of doing the work.

It is unpleasant to make the above statements, but I fear they voice the sentiments of the greater number of Associates.

Things have been taken lying down long enough, and some such Guild as your correspondent suggests might in time become strong enough to stem the tide.

—ANOTHER ASSOCIATE.

SIR,—In answer to the letter of "Associate R.I.B.A." in your last issue, I wish to inform him that a "Committee of Associates" was formed six months ago to protect the interests of that class, and I shall be pleased to give any information in connexion therewith to members of the Royal Institute.

WILLIAM H. BURT,
Hon. Secretary, Committee of Associates,
14, Southampton-street, Strand.

Official Architecture.

SIR,—From the reply of the First Commissioner on the 7th inst. in the House of Commons, it would appear that the Commissioners of the Office of Works do not regard their own certificate of Technical Efficiency as being of equal value to the similar certificate issued by the Commissioners of the Civil Service.

Now the former was issued to those of the "Architectural Assistant" class whom they regarded as being of such good service as "draughtsmen" as to be worthy of it after, at the least, twelve months' examination (this being the probationary term for all entrants to the department) with dismissal for inefficiency to follow during all that period, and, indeed, during all the period of their previous service. Whereas the latter certificate was obtained for six days' examination at Burlington House in matter foreign for the most part to the required duties afterwards.

The importance of the value of the certificate in question is apparent, having regard to the latter part of the First Commissioner's reply to a question in the House on the 24th ult., wherein he speaks of the "consequent sacrifice of present income which would be demanded by the regulations." The Architectural Assistants are, in addition to establishment, asking for a more adequate rate of remuneration for their professional services than the majority now obtain; and they submit that the regulation should not be enforced in this special case, seeing that it was framed previous to the formation of any such class as the one in review, *i.e.*, a temporary one with a Technical Certificate in addition, for the latter instrument in past cases carried with it the permanent position, and in this respect the class is unique, and unique treatment should be accorded it.

But with the latter certificate (that of the Civil Service Commissioners) the "temporary draughtsman" (or employee under the age of thirty and minus the Board's Certificate), have, in most cases, actually doubled their salaries from 2*l.*, and less, to 4*l.* per week at one bound. The "Architectural Assistant" class ask for a lesser bound from an average of the whole class of some 63*s.* to 4*l.* (and, in a few cases, from 50*s.* to this sum).

Perhaps a further question in the House will elicit the information for what purpose was the certificate created in February, 1907, unless for improved status and remuneration, seeing that every member of the newly-created class of "Architectural Assistants" (formerly draughtsmen) were duly accredited servants of the Board, having long since passed their probationary period, and being thus retained were, of course, necessarily efficient.

It is gratifying to know from the reply of the First Commissioner on the 7th inst. to a second question that preferential treatment, wisely foreshadowed by your correspondent last week, is not now contemplated by him which is in strict accord with Civil Service rule, which prescribes that the services of all of one class should be regarded as of equal value and to merit equal treatment.

JUSTICE.

[The replies referred to will be found in our General News column, p. 702.]

Cost of Joinery.

SIR,—Much may be said on this subject. There can be no doubt that where a foreman dominates and controls a business the way is open for irregularities, and his discipline of the shop may lead to the inference that he carries on an employment bureau.

It must be obvious in many cases that the foreman has interests that do not coincide with the firm's, and unless the office is alert serious loss may continue. Where a foreman takes orders and executes on his "own," the time-sheets are manipulated to suit the office bookings, and the workmen may be entirely innocent of any wrong; thus the costs of many jobs are inflated. This is patent where orders never see an order-book, and goods are delivered that do not appear in the day-book.

"F. M." could not know that the foreman faked the time-sheet unless it came to him from the office afterwards, but it is a wise precaution to have ductile men where this is done.

Tips may have no existence, but there may be many drinks, etc., to explain much that is not strictly in line with modern up-to-date business methods.

Danger lies in allowing the foreman to manage any business. No firm can be successful if workmen control or interfere in the management.

SECOND LIVERPOOL.

Certified Plans of Houses Dating from Before the Year 1800.

SIR,—The historical value of plans of old buildings which have been pulled down has often been demonstrated, and it is of the utmost importance that these should be available for reference. Since, in most cases of demolition, surveys are made in the ordinary course of business, and copies of certified plans are lodged with the District Surveyor, it is evident that a large number of these records are actually in existence. May we, therefore, through your columns, ask all architects who have such drawings in their possession, or who may have occasion to make them, kindly to communicate with us, and, if possible, allow us the opportunity of having tracings made for the London collection? At the cost of a very little trouble a most important amount of information could thus be obtained.

PHILIP NORMAN, Chairman.
PERCY W. LOVELL, Secretary.

The Committee for the Survey of the Memorials of Greater London, 23, Old Queen-street, S.W.

Marylebone Municipal Buildings.

SIR,—In view of your very able criticism of the Marylebone Municipal Buildings Competition last week, and considering the importance of the utility of such buildings to the public, it would be very interesting matter to a great many readers no doubt if you could see your way to still further illustrate plans and details of those very earnest endeavours which your critic thinks, "happily and rightly," very meritorious schemes, viz., of those whose names he mentioned in the latter part of his article.

By them the solution of the problem governed by the conditions laid down seems to have been literally carried out to a remarkable extent, taking into great consideration the placing of the various public offices for convenient approach, as also for the convenience of the official staff.

With a proper adherence to the conditions some of these plans (in this particular competition) have been studied with wonderful care, with a due regard for exactitude and consistent with a simple and yet dignified building which I take the liberty of saying has been interpreted by some competitors as a *sine quâ non*.

TRUTH.

[We regret that the pressure on our columns prevents our publication of the meritorious plans referred to by our correspondent.—ED.]

Manchester Architectural Competition for Library and Art Gallery.

SIR,—I learn from this morning's *Daily Dispatch* that the ten designs submitted in the "final" competition are to be publicly exhibited for a fortnight.

May I respectfully suggest to our Corporation the inclusion also in the exhibition of the ten "sketch" designs, descriptive reports, and estimates of cost, submitted by the same authors in the preliminary round, and which were the assessor's choice out of the 223 schemes sent in—and that obtained them this honourable position?

Doubtless also an exhibition of the "sketch" designs, etc., alongside the "final" ones would be of interest to the Manchester public generally.

G. H. WILLOUGHBY.
National Buildings, Manchester.
December 9.

FIFTY YEARS AGO.

From the *Builder* of December 14, 1861.

New Motive Power.

AN invention by Mr. Lenoir seems to meet with approval in scientific circles in Paris. It is simply the application of common gas, exploded in small quantities above and below the piston of what was once a steam-engine, the explosions being produced under regulation by the electric spark from a Rumkorff machine. The gas costs 500 litres per hour for each horse-power, ten hours' work costing about 1*s.* 3*d.* per horse-power. This invention is about to be applied to locomotives on land and water, and the gas required may be produced by the decomposition of water itself.

EDITORIAL SUMMARY.

The leading article this week is upon the work of the R.A. Students this year.

In a second article we deal with the new scheme proposed for the Liverpool King Edward Memorial (p. 694).

In our "Notes" Column (p. 695) will be found comments on: "Lady Students of Art"; "The Semi-Nude"; "The New Capital of India"; "The Object of the British School at Rome"; "Overstrand Church."

A business meeting of the Royal Institute of British Architects was held on the 4th inst., when candidates for membership were elected (p. 696).

At the combined meeting of the Architectural Association with the Camera, Sketch, and Debate Club on Monday a paper was read by Mr. Alan E. Munby, entitled "Is the Texture of Materials a Fetish?" A discussion followed (p. 696).

Short reports of meetings of the following architectural societies appear on p. 700: "Nottingham Architectural Society"; "Architectural Association of Ireland"; "Glasgow Technical College Architectural Craftsmen's Society"; "Manchester Society of Architects"; "The Royal Institute of the Architects of Ireland."

At a meeting of the Society of Architects on Thursday Mr. G. A. T. Middleton read a paper on "Alexandria: Its Place in Architectural History," an abstract of which is given on p. 701.

The list of prize-winners for this year of the Royal Academy Schools is given on p. 702.

In our Correspondence columns (p. 704) will be found letters on: "False Economy"; "National Insurance"; "Certified Plans of Houses Dating from Before the Year 1800"; "Cost of Joinery"; "The R.I.B.A. and the Associates"; "Marylebone Municipal Buildings"; "Official Architecture"; and "Manchester Library and Art Gallery Competition."

A report of a meeting of the Model Abattoir Society is given on this page.

In place of the Monthly Review we give this week (p. 707) a comprehensive review, with many illustrations, of the Competition for the Proposed Library and Art Gallery Manchester.

An abstract of a lecture on "Early Christian Mosaics," by Mr. G. MacN. Rushforth, will be found on p. 715. It is followed by an abstract of Professor Elsey Smith's lecture on "The Early Roman Churches," both lectures being delivered at King's College (University of London).

In our Building Trade Section (p. 721) will be found: "Day Works"; "Combination among Builders"; "The Mediæval Sawyer"; "Projected New Buildings in the Provinces"; "Applications under the Building Acts, 1894-1909."

In Legal Column (p. 724) will be found comments on: "Baker *v.* Ingall" (Trade Union Law); "Gas Mains: 'Building' or 'Tunnel'?"; "Building Estate — Implied Grant of Right of Way"; "Waste Land by Highways."

Law Reports (p. 724) include: "L.C.C. *v.* Clark"; "Action by Contractors on District Surveyor's Certificate."

MEETINGS.

FRIDAY, DECEMBER 15.

The Institution of Mechanical Engineers.—(1) Discussion upon "Double-Cutting and High-Speed Planing Machines," by Mr. J. Hartley Wicksteed. (2) Paper to be read and discussed (if time permits): "Oil-Burning Locomotives on the Tehuantepec National Railway, Mexico," by Mr. R. Godfrey Aston. 8 p.m.

MONDAY, DECEMBER 18.

The Royal Institute of British Architects.—"The Newer Responsibilities of Architects," under the management of the Practice Standing Committee. Papers by Messrs. A. Saxon Snell, W. Henry White, Wm. Woodward, and Edward Greenop. 8 p.m.

Victoria and Albert Museum.—Mr. Banister Fletcher on "The Later Renaissance Palaces and Churches of France." 5 p.m.

TUESDAY, DECEMBER 19.

The Illuminating Engineering Society (Royal Society of Arts, John-street, Adelphi, London).—Mr. Haydn T. Harrison on "Some Aspects of Railway Station and Goods Yard Illumination." 8 p.m.

University of London (British Museum).—Mr. Banister Fletcher on "Greek Theatres, Propylæa, Stadia, etc. Lantern illustrations. 4.30 p.m.

The Institution of Civil Engineers.—Ordinary meeting. Paper on "Experiments on the Strength and Fatigue Properties of Welded Joints in Iron and Steel," by Messrs. T. E. Stanton, D.Sc., M.Inst.C.E., and J. H. Pannell.

WEDNESDAY, DECEMBER 20.

The Institution of Civil Engineers.—Students' visit to the testing works and museums of Messrs. D. Kirkaldy & Son, Southwark-street, S.E.

ILLUSTRATIONS.

Manchester Library and Art Gallery.

OUR illustrations this week are devoted to some of the designs sent in for the Manchester Library and Art Gallery competition, to which we refer at length on page 707 *et seq.*

MODEL ABATTOIR SOCIETY.

On Thursday, December 7, Sir James Crichton Browne presided at the Rooms of the Royal Society of Arts over a conference arranged by the Model Abattoir Society, and in the course of a most interesting address said the Society was established in 1886 by the late Sir Benjamin Ward Richardson with the object of enlightening a then somewhat ignorant and indifferent public as to the evils existing in private slaughter-houses. It had distributed literature and arranged conferences, and had given advice as to planning and construction when requested. They felt that the time had now come when they should enter on a more active propaganda, and that a demand should be made for the provision in all populous places of properly constructed slaughter-houses adequate to the requirements of the place, isolated outside the town, connected with a railway system by a branch line, and approached by wide roads, so that if cattle were driven through them there need be no interference with traffic, and so arranged as to facilitate strict skilled and unremitting supervision over all the animals brought for slaughter, and all the meat sent out. A properly conducted municipal slaughter-house run on business lines should prove a profitable municipal investment, and had already done so in several cases. Public slaughter-houses were of ancient date, for in 300 B.C. animals were slaughtered in the open-air in the Forum in Rome, which was the great centre of public business, and was adorned with temples, colonnades, and basilicas. Later, to meet the convenience of butchers, a house on the banks of the Tiber was given to them for the purposes of their trade—a genuine special public slaughter-house. In ancient Greece and Rome the temples were public abattoirs where the slaughter of animals was carried out under strict regulations, of religious origin, but really humane and hygienic in their nature. The slaughtering must sometimes have been on a large scale, as in State sacrifices victims were presented in great numbers, and at the Athenian festival in commemoration of the victory at Marathon, 500 goats were slain at one time. In mediæval times public slaughter-houses existed in many large towns in Germany under the name of *Kuttelhöfe*, and these were mostly situated on rivers where copious supplies of water could be obtained, and where drainage was easy. It was not, however, until the middle of the last century that laws were enacted in Prussia and other German States empowering urban authorities to require that all animals killed in towns should be slaughtered in public abattoirs. In France, in the XVth and XVIth centuries, numerous towns possessed public slaughter-houses, but owing to their situation and neglect they became atrocious nuisances, and it was the Code Napoleon that caused the provision of suitable slaughter-houses in all large towns. In Norway and Sweden a law of 1892 required the provision of public slaughter-houses, but it had only been partially carried out. In Denmark there were public slaughter-houses in a few towns, and the one at Copenhagen, although not without defects, was creditable to the country. A recent visitor enlarged on the ample space provided—the broad avenues planted with trees, the absence of high buildings or inhabited dwellings close by, the amplitude of the pens allotted to big cattle, the careful slopings of the floors, the currents of fresh water passing through the separate accommodation for cattle known to be diseased, etc. In England the power to provide public slaughter-houses was given by the Public Health Act of 1848, but the authorities had no power to control the continuance of private slaughter-houses, and therefore they had been unable to ensure that public slaughter-houses when provided would be used by the butchers. The policy of their Society was to make obligatory the erection in all urban places of public slaughter-houses and the removal of all private slaughter-houses from the congested neighbourhoods in which they now existed. They wanted to ensure that the public slaughter-houses and the lairs connected with them were properly warmed, ventilated, drained, and furnished with suitable conveniences for washing and cleansing. It was undoubtedly to Germany that they must turn for the best examples of slaughter-house construction and management, but in order that immediate guidance may not be wanting in this country the Society had had prepared by Mr. Ayling a model of a slaughter-house embodying all the most modern improvements to be found in Germany and anywhere else. That model, domiciled in the Royal Sanitary Institute, was exhibited in the room that evening, and was sent to any part of the country where there was an opportunity of showing it to advantage.

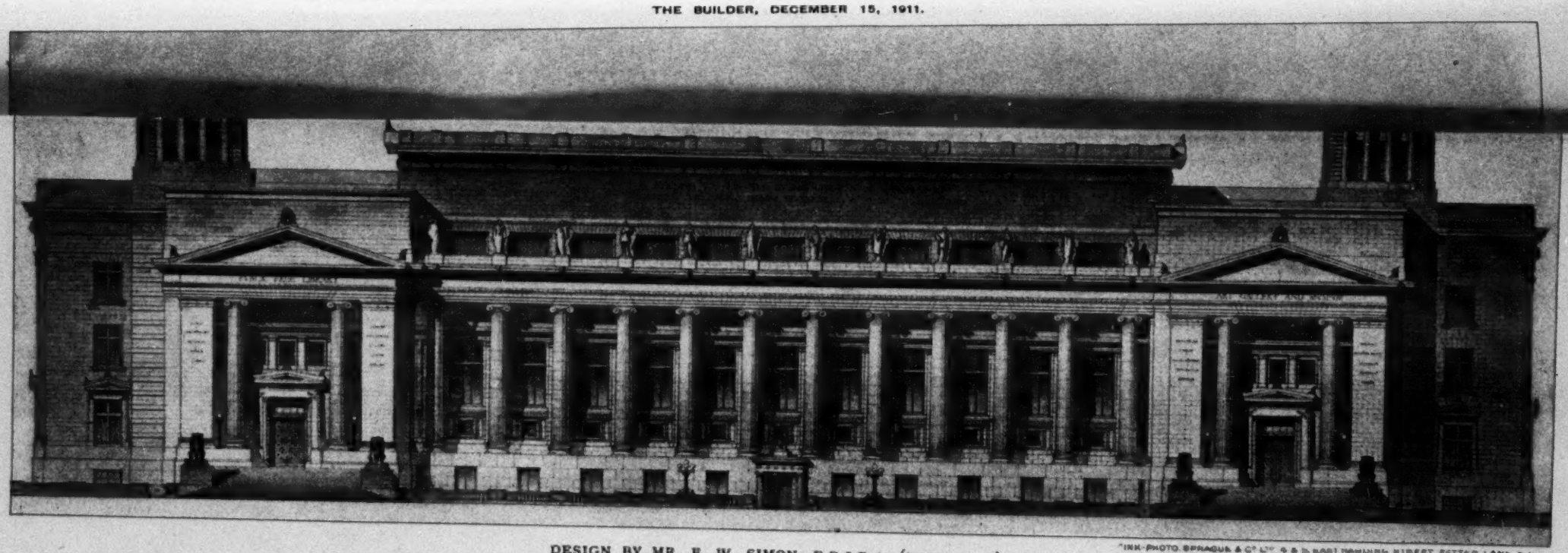
Mr. H. S. Ayling said that some years ago Mr. Blashill, the then architect of the London County Council, and the Medical Officer of Health, reported strongly in favour of public abattoirs, but the opposition of the trade was too strong. Recently the matter had been pressed on Parliament, the London County Council, and the Local Government Board, but practically nothing had been done. There were 243 private slaughter-houses in London, many in closely-packed neighbourhoods, and he did not think a single one of them complied with the by-laws of the Local Government Board, which recommended that there should be no slaughter-house within a 100 ft. of any residence. With regard to the construction of slaughter-houses, there were two main types—the separate chamber and the open hall, but the former was becoming obsolete. At Chatham the Admiralty had adopted a system which had the advantages of the open hall without its disadvantages. Mr. Ayling proceeded to describe the model abattoir exhibited, and said the scheme provided for dealing with about 100,000 animals per annum. The principle aimed at was to design the building to deal with the animals on hygienic and humanitarian lines, and arrangements were also made by which the bye-products, which went to waste in small private slaughter-houses, could be profitably dealt with. It was arranged that all the animals should arrive either by railway or road and enter at the back of the abattoir, and the accommodation for the various operators to deal with them was planned in such a way that there was no retracing of steps at any stage. In addition to the lairs, stunning courts, cooling rooms, buildings for the treatment of so-called offal, etc., the scheme also provided for baths and dressing and messing rooms for the staff, a residence for the superintendent, offices, lavatories, etc. Mr. Ayling said that a recent writer deprecated the erection of large public abattoirs on the ground that such places were unfit for publication, and suggested that they should be enclosed by high brick walls or hidden away underground. If that idea was adopted they might get some of the advantages which the Society were aiming at. He did not see why such buildings should not have a distinct architectural character. It was true that the passer-by would be reminded of an unpleasant fact in life, but so he was if he passed a children's hospital or a home for incurables.

Considerable discussion ensued, in which Dr. Kenwood, Mr. E. H. Rowbotham, Mr. M. Myers, Mr. Apson, Mr. A. C. Brown, and Mr. C. Cash took part. The discussion ranged almost entirely round the question of the humane slaughtering of animals, and the merits of the Jewish method of slaughtering evoked some differences of opinion.

Eventually the Chairman moved: "That in the opinion of this meeting public abattoirs should entirely supersede private slaughter-houses in urban districts, and only the most humane methods of slaughtering should be permitted."

The resolution was carried unanimously.

THE BUILDER, DECEMBER 15, 1911.



DESIGN BY MR. F. W. SIMON, F.R.I.B.A. (LIVERPOOL).

INK-PHOTO. SPRAGUE & Co LTD 6 & 7, EAST HARDING STREET, FETTER LANE, E.C.

MANCHESTER LIBRARY AND ART GALLERY COMPETITION.

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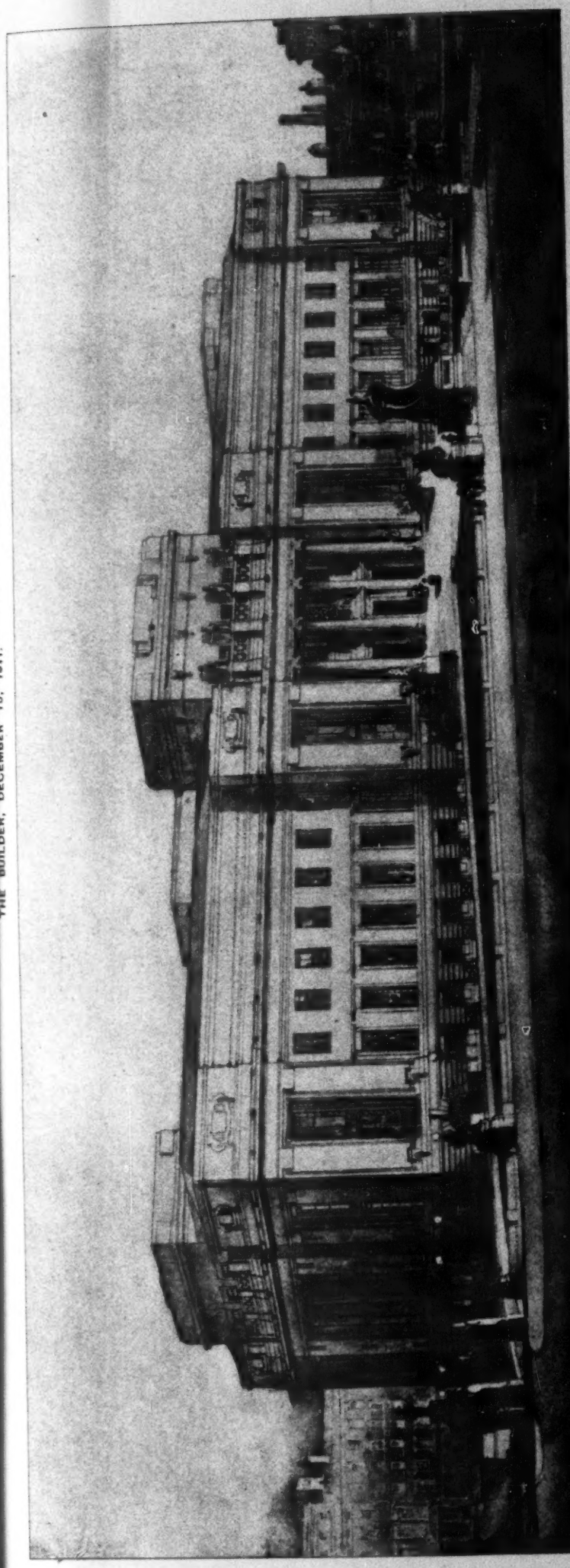
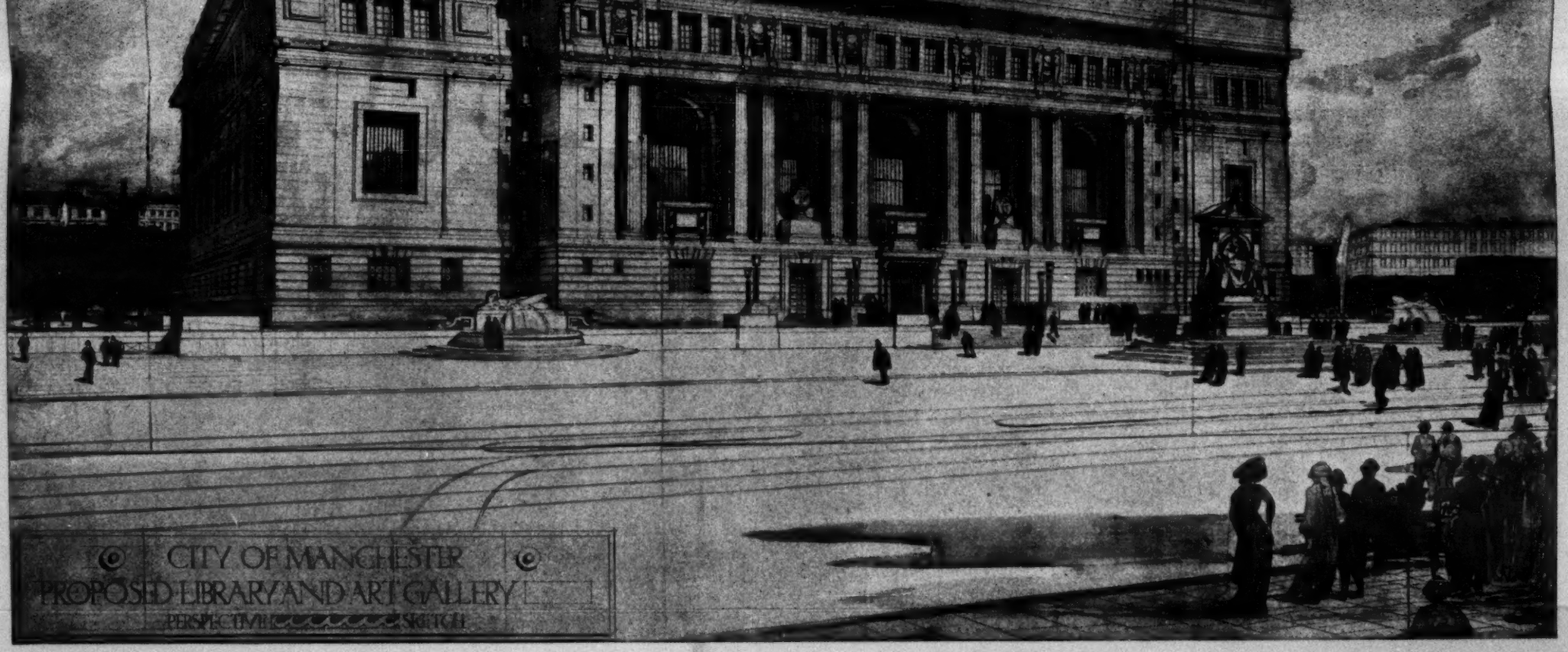
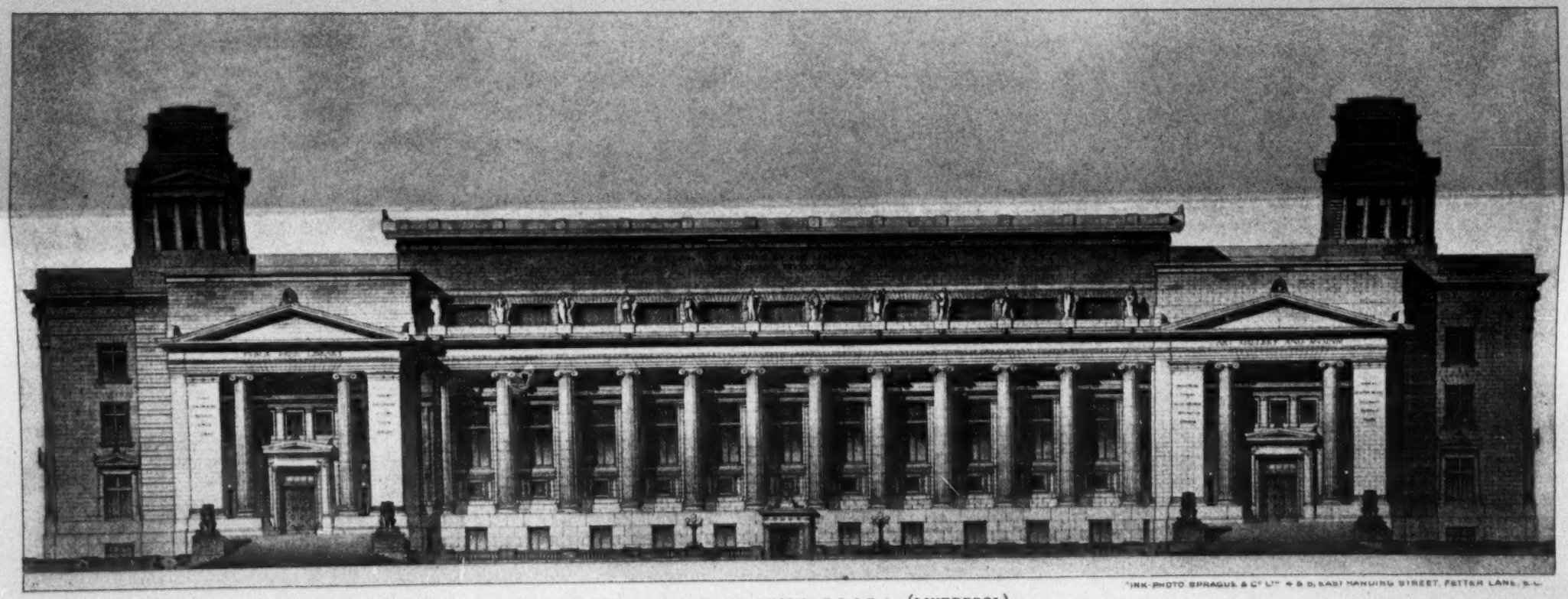


SELECTED DESIGN, BY MESSRS. CROUCH, BUTLER & SAVAGE (BIRMINGHAM).

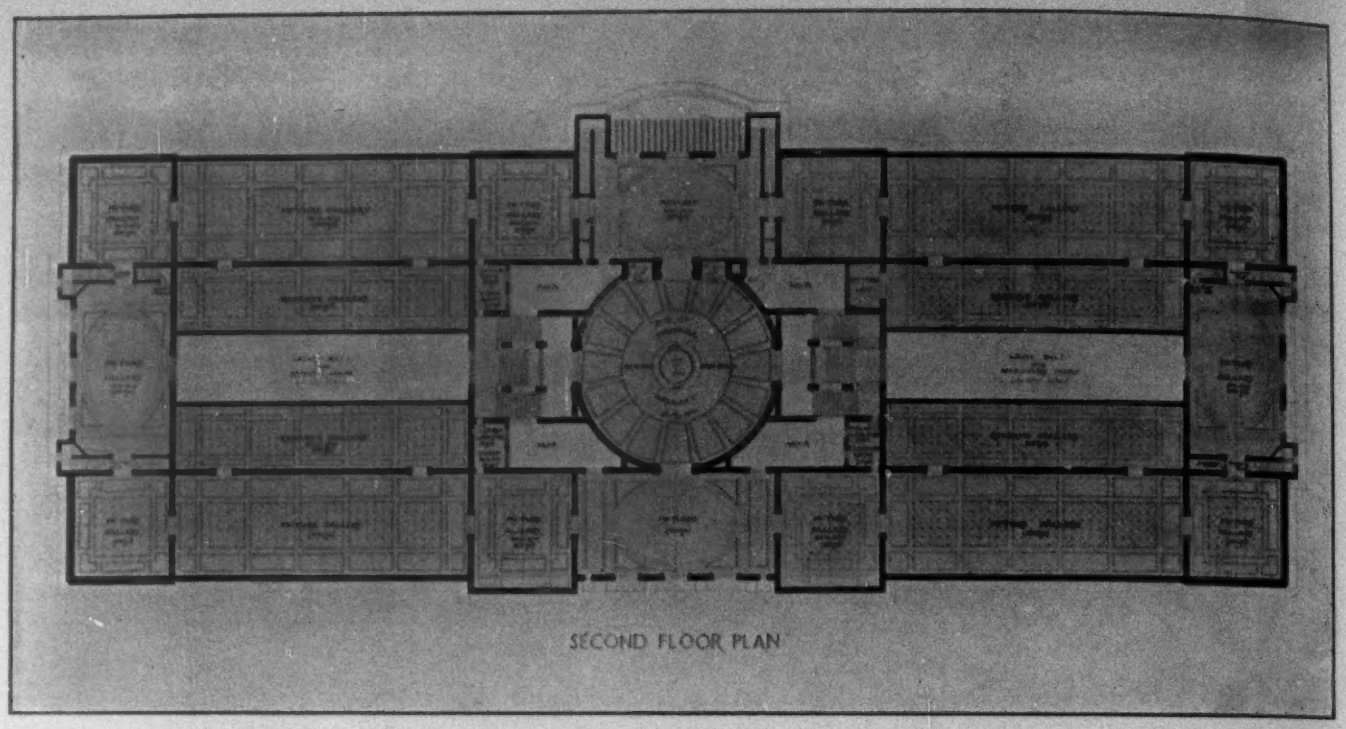


DESIGN BY MR. ROBERT ATKINSON, A.R.I.B.A. (LONDON).

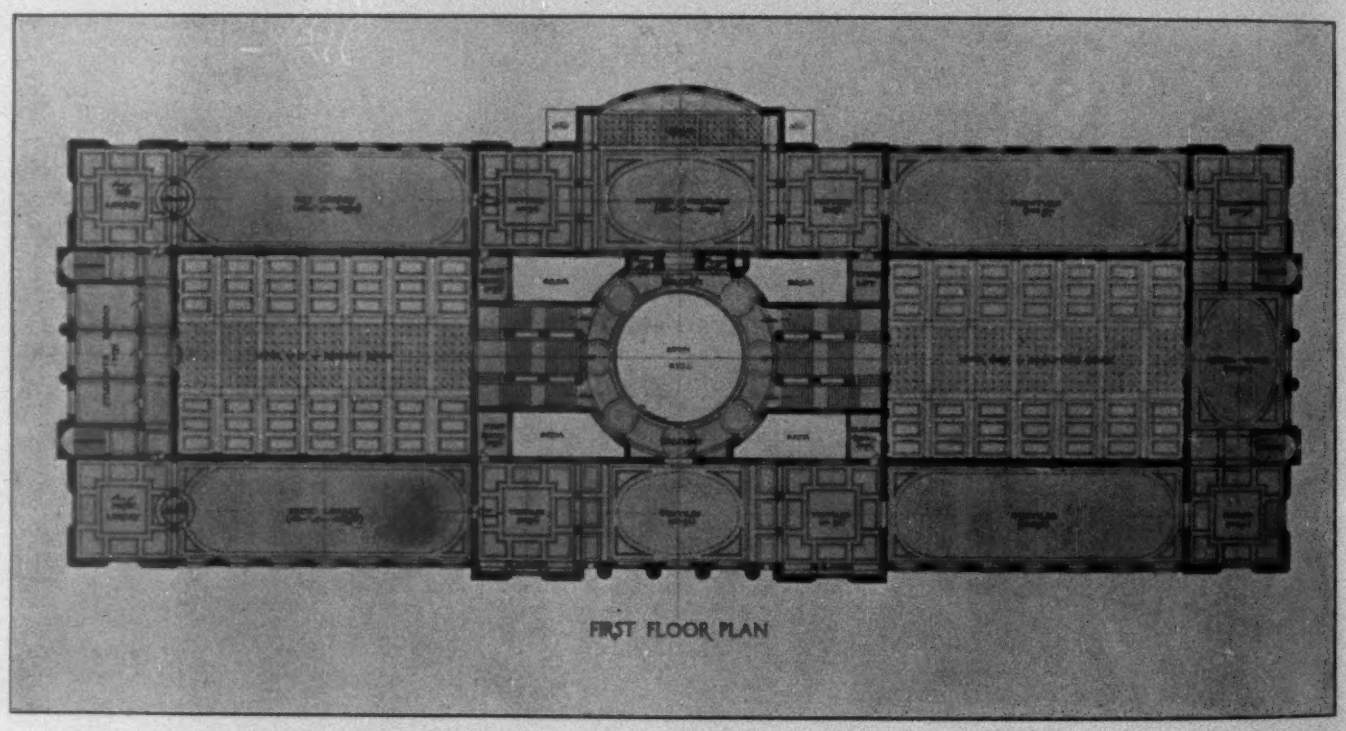


DESIGN BY MR. F. W. SIMON, F.R.I.B.A. (LIVERPOOL).

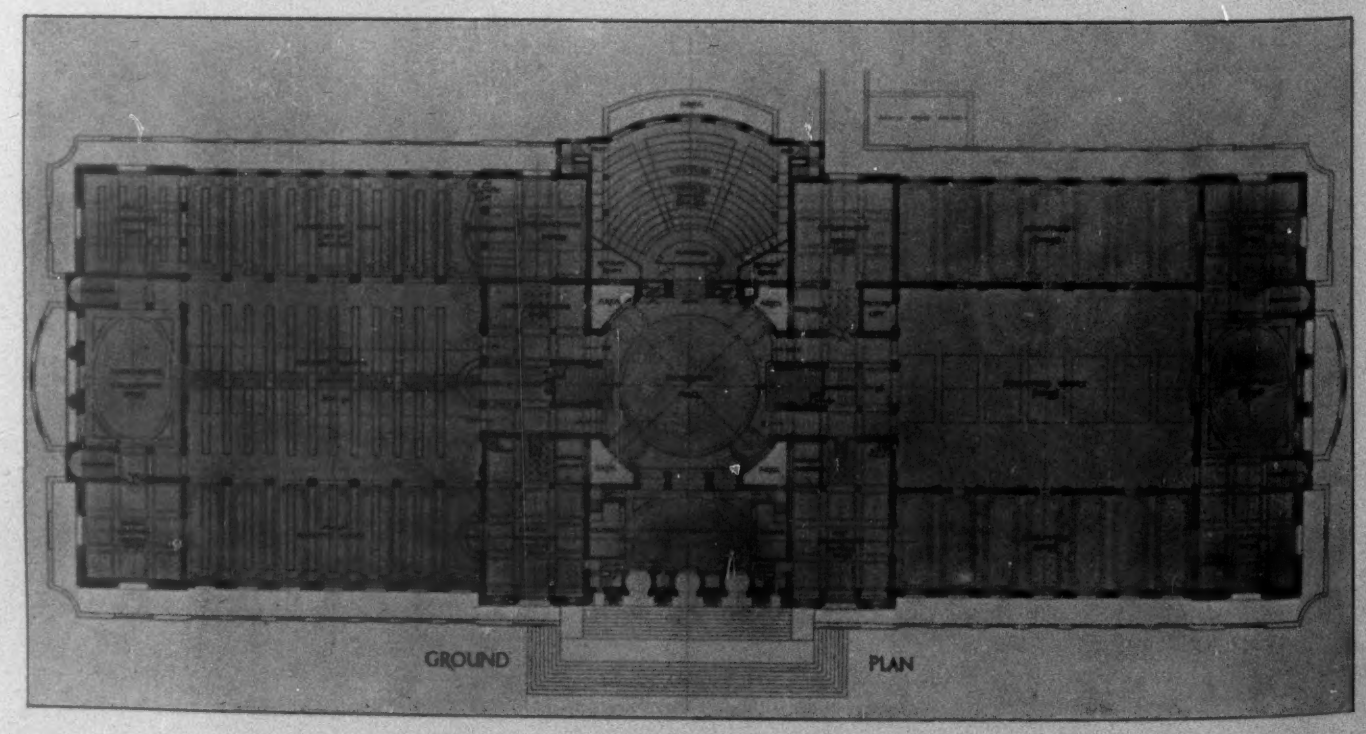
MANCHESTER LIBRARY AND ART GALLERY COMPETITION.



SECOND FLOOR PLAN



FIRST FLOOR PLAN

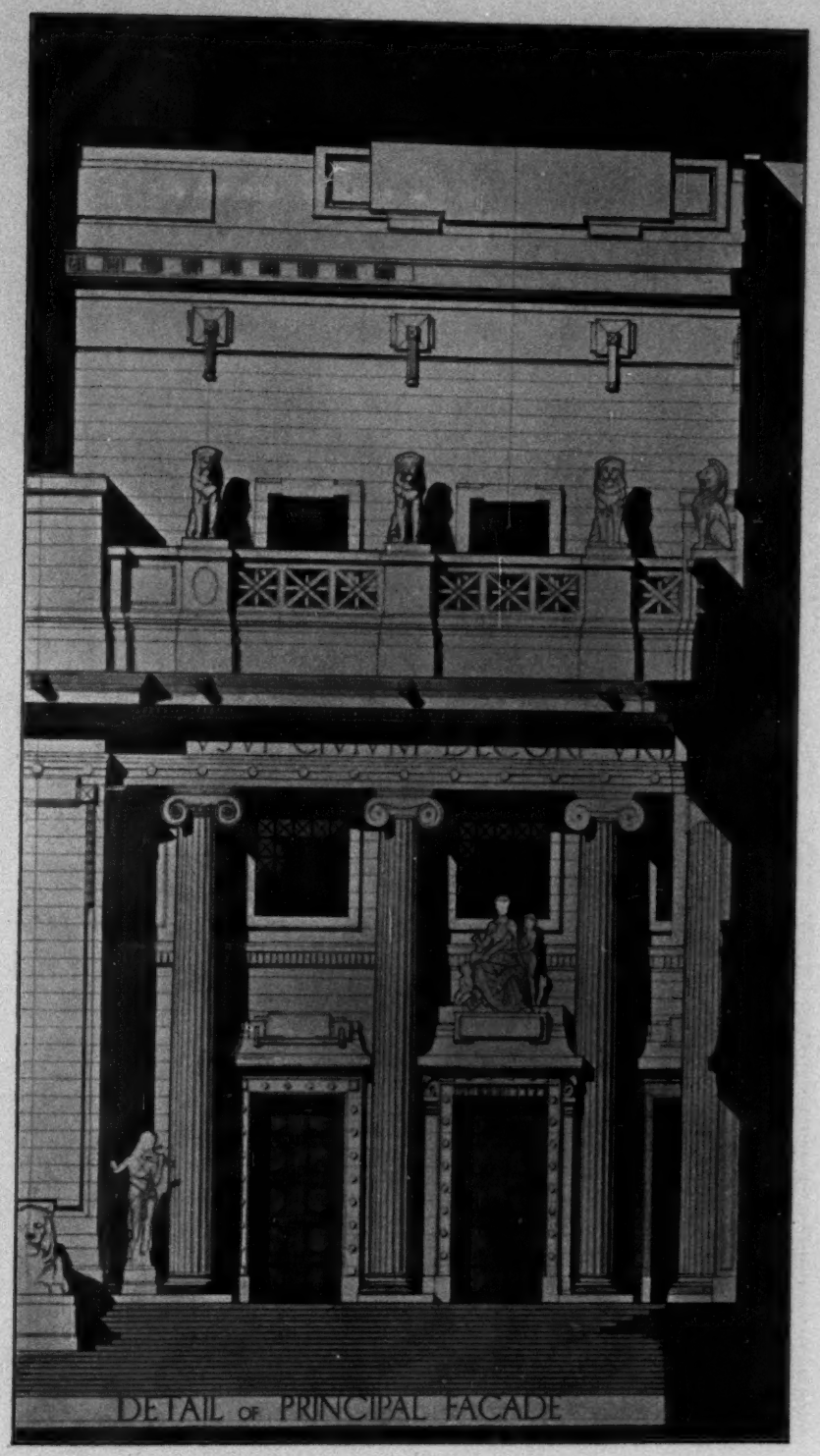


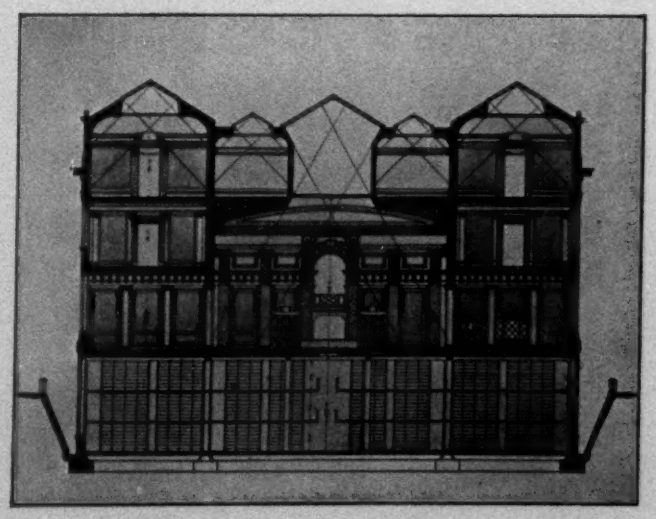
GROUND PLAN

Sprague & Co., Ltd., Printers, 4 & 5 East Harding St., E.C.

SELECTED DESIGN, BY MESSRS. CROUCH, BUTLER & SAVAGE (BIRMINGHAM).

MANCHESTER LIBRARY AND ART GALLERY COMPETITION.





Sprague & Co., Ltd., Printers, 4 & 5 East Harding st., E.C.

CROSS SECTION.

SELECTED DESIGN, BY MESSRS. CROUCH, BUTLER & SAVAGE (BIRMINGHAM).

MANCHESTER LIBRARY AND ART GALLERY COMPETITION.

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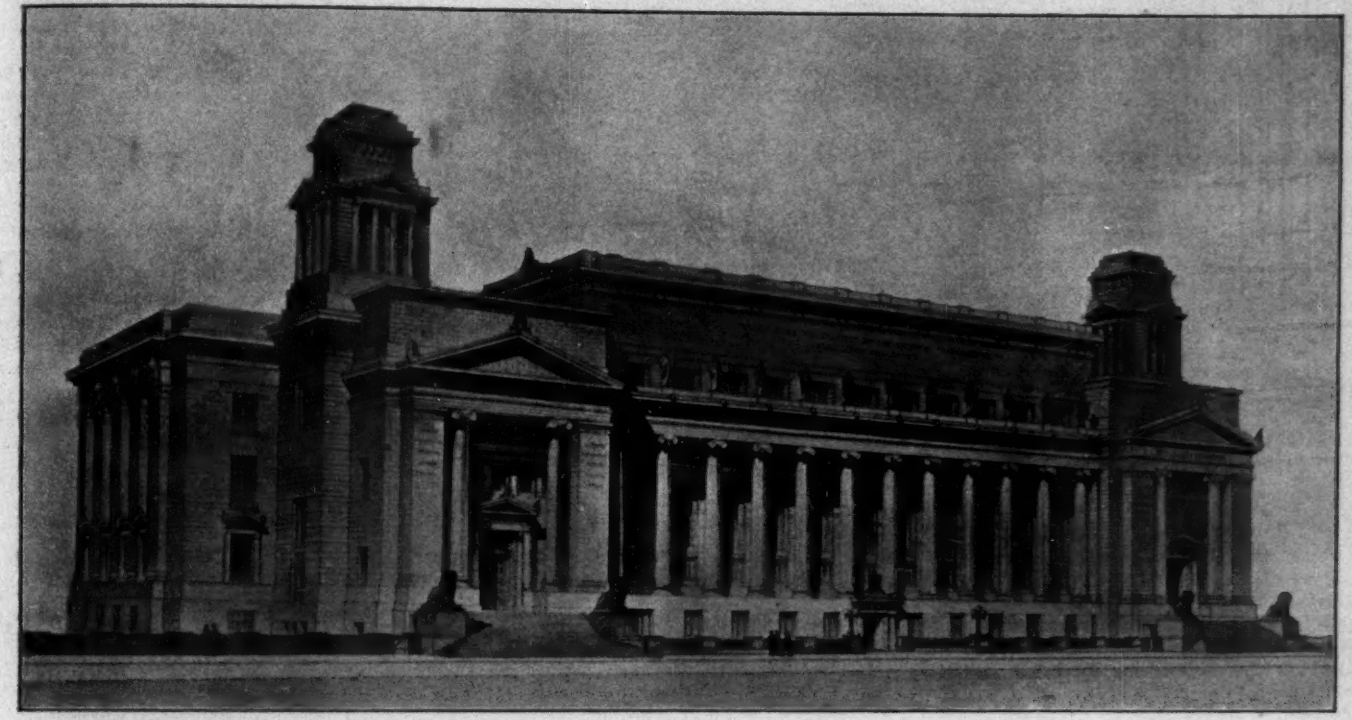
THE COMPETITION *for* LIBRARY *and* ART GALLERY, MANCHESTER.



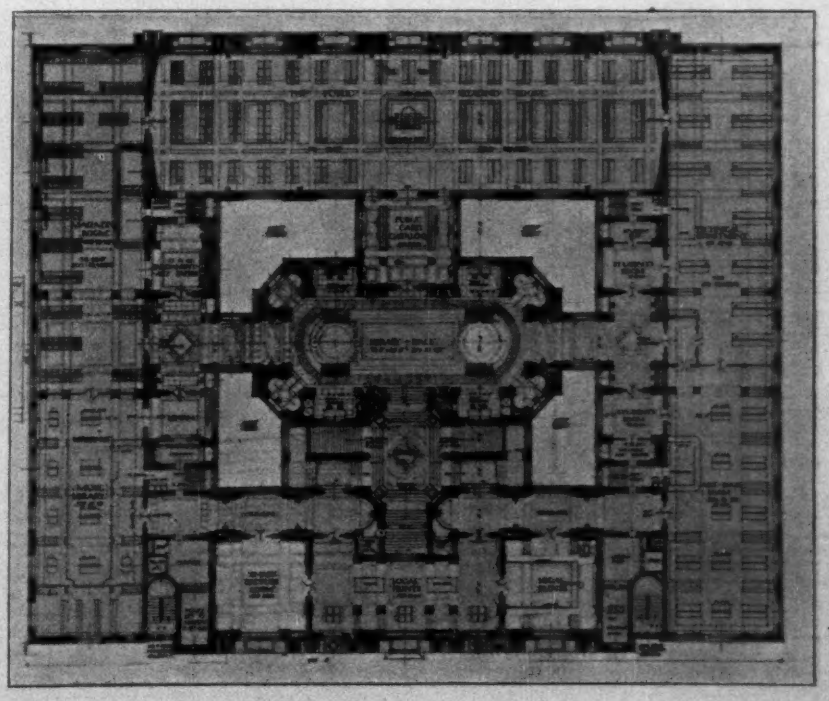
Design by Mr. F. W. Simon (Liverpool).

IF the question had been put to competitors in the above competition, "What condition presents the greatest difficulty?" the reply would have been almost unanimous that it was the limitation of the area. Apart from the question of municipal finance, this limitation seemed unwise and uncalled for, and, as a result, not one of the designs exhibited, and in all probability not one of those that did not reach the second stage, is as good as it might have been had a little more latitude been granted.

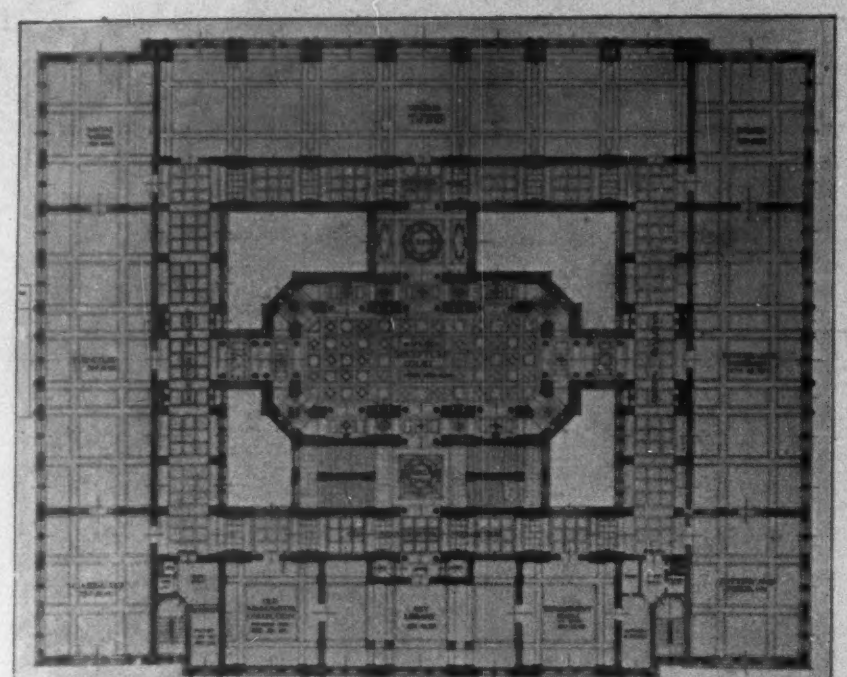
And yet this handicap, important though it be, does not appear to us as great, from the purely architectural standpoint, as the difficulty of combining the buildings necessary for two distinct and practically separate institutions in one design that must, according to all recognised ideals, possess a monumental homogeneity. It is an oft-repeated axiom that a building should express its purpose, and, though this axiom has been made the stalking-horse for numerous absurdities, it really rests on a sound basis. How, therefore, are two buildings demanding the expression of their specific characteristics to find this in a single comprehensive design?

It is quite obvious that one of the component parts will inevitably dominate, in an architectural sense, the other, and in this particular instance the dominant one has been recognised in the art galleries, except in the case of one competitor, who has, by a striking *tour de force*, been able to secure this position for the library. It is useless to grumble, because we all know that when the interests of architecture come up against those of finance it is not the latter which go to the wall, and all our architects can do is to pocket their personal convictions and do the best they can under conditions dictated to them by the higher powers. If the problem is so set them they must try and work two buildings into one on the lines that we once heard aptly described as "budget architecture" in a criticism of the successful design in an important London competition.

From the point of view of the practical economist there was something to be said for the conjunction, which had the advantage of enabling all the principal rooms of the library to be arranged on one floor without undue extravagance in land. We should have expected that this would have been so generally appreciated that the designs—at all events those which reached the "short leet"—would all have exhibited this method, any



Principal Floor Plan: By Mr. Robert Atkinson (London).



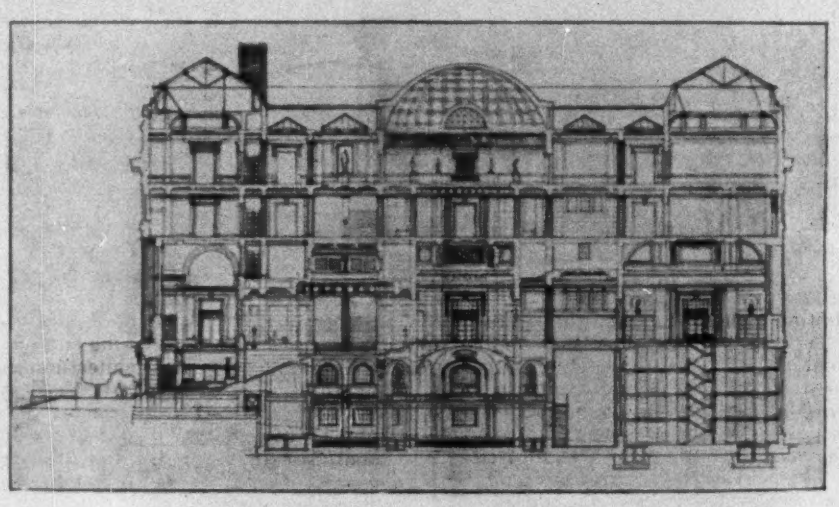
First Floor Plan: By Mr. Robert Atkinson (London).

other involving marked practical disadvantages. In this respect it is curious to note the variety in the treatment adopted in the designs selected for the final competition, and it seems to argue a certain hesitancy and uncertainty in the assessor's mind that he should have selected what were, in his view, the best in each of a number of varied solutions of the problem rather than have determined on what was the right method and selected designs based on it. Whatever the complications and difficulties, it seems to us that when a number of schemes are analysed it will inevitably be found that one type of arrangement is definitely superior to all others, and that any design conforming to this type must take precedence of one, admittedly more brilliant, that is on the wrong tack in handling the logical necessities of the problem.

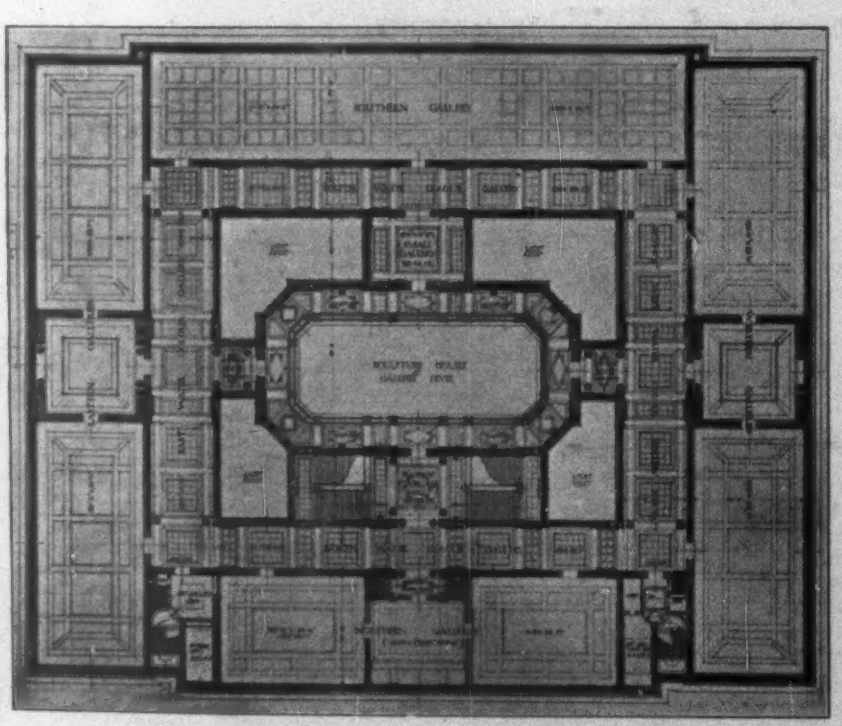
This can hardly have been Professor Reginald Blomfield's view, as, though six of the ten premiated designs adopt the ground-floor library, which appeals to us as the best treatment, the four others have a large proportion of this floor occupied by the sculpture court and galleries, and these exhibit a marked variety in general conception of the exigencies of the case.

There are, of course, distinct advantages in placing the sculpture court on the entrance floor, and the main question with the adjudicator must have been, Did these advantages compensate for the less convenient library? We can understand his deciding either that they did or did not; but he seems, till the making of his final decision, to have been in doubt on this point, and to have placed an almost equal number of the two types.

In making his final award the assessor has adopted the type of design that divides the ground floor between the library and sculpture gallery, not, it would appear, because he believes in this as inherently the right system, but because the design displays a very high degree of skill in the way in which the maximum accommodation is obtained on the area available, and also, as the award makes clear, because he feels in strong sympathy with the architectural treatment. In the winning designs by Messrs. Crouch, Butler, & Savage the library is balanced by the sculpture court, each occupying nearly half the site, the space between them containing the vestibule, central hall, and lecture



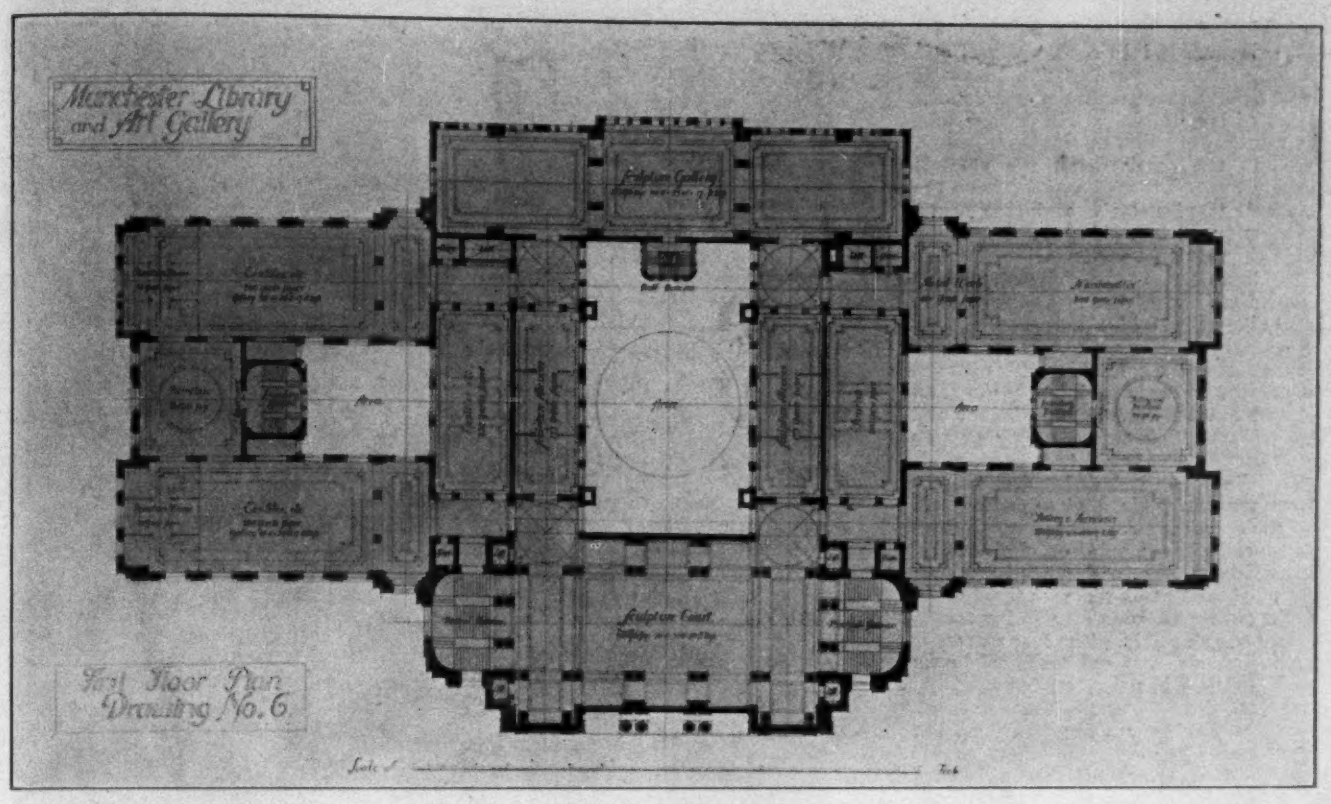
Cross-Section: By Mr. Robert Atkinson (London).



Second Floor Plan: By Mr. Robert Atkinson (London).

theatre. From the central hall the main staircases rise to the right and left, while on each side of these are pairs of entrances to sculpture court and the reference library, the latter flanked by the magazine-room and the technical-room, over which, on a mezzanine, are the art and music libraries. Owing to the arrangement of the stack-room, which is located in the basement (see section), and extends right across the building, this design is at a great advantage in comparison with all the others (except Mr. Robert Atkinson's and Messrs. Worthington's) in regard to the area available for the ground-floor rooms. We would not suggest that this scheme is inadmissible under the conditions, but it is certainly very different from the stack-room, independent of artificial light, that was described. In fairness to all competitors the condition in question should have been made more clearly as a suggestion only if this form of stack-room is acceptable.

The authors of this design were probably quite aware that they were taking risks, both in regard to this feature and to the lighting of the sculpture court, and made these sacrifices deliberately with a view to reducing the height of the building to the minimum possible. As a result they are easily ahead of other competitors in this respect, and the lower proportion gives an advantage in the architectural treatment



By Messrs. Bradshaw & Gass (Bolton).

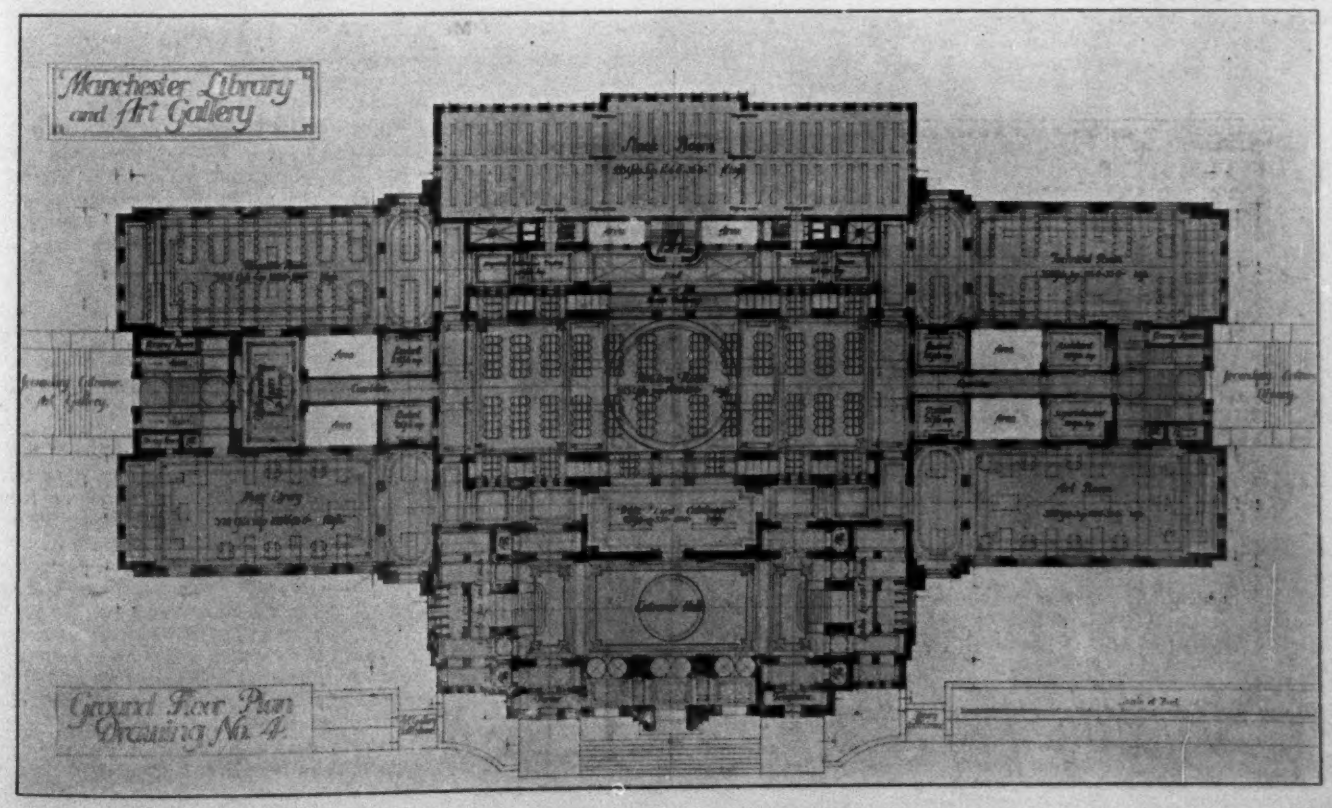
that has been duly appreciated by the assessor.

The simplicity of the general scheme is striking, and the planning of the upper floors appropriate to their purpose, but in minor points of arrangement there appear to be serious defects. Apart from the fact that the pairs of entrances on either side of the central hall lack the dignity their purpose demands, those to the library have the added disadvantage of cutting up the staff accommodation, which is not well located. Four entrances and staircases are also provided at the ends of the building; but even with these the intercommunication in the library is not all that could be desired. The first-floor rooms are reached by means of a gallery round the central hall, but we cannot say that the approach to them is architecturally adequate to the scale of the rooms. On the second floor the maximum possible area is obtained for the top-lighted galleries, and by this means this design is contrived with one floor less than most of the others submitted.

In regard to its architecture, the winning design received the following encomium from the assessor:—"The architectural character of the design generally is that of severe classic, such as was practised in Manchester and Liverpool in the earlier part of the last century, and is, in my opinion, eminently suitable for the purpose. Its details have been well considered from a practical point of view, and the result is, in my opinion, a fine, straightforward architectural monument well adapted to the site and worthy of its position as a central feature of Manchester."

Passing on to the designs in which the ground floor is entirely devoted to the library—an arrangement which certainly gives superior possibilities in management and control—we find in this category the designs of Messrs. Robert Atkinson, Bradshaw & Gass, Cooper & Slater, Warwick & Hall, A. G. Henderson, and Messrs. Worthington & Son.

Mr. Robert Atkinson in his design has raised his main library floor sufficiently high

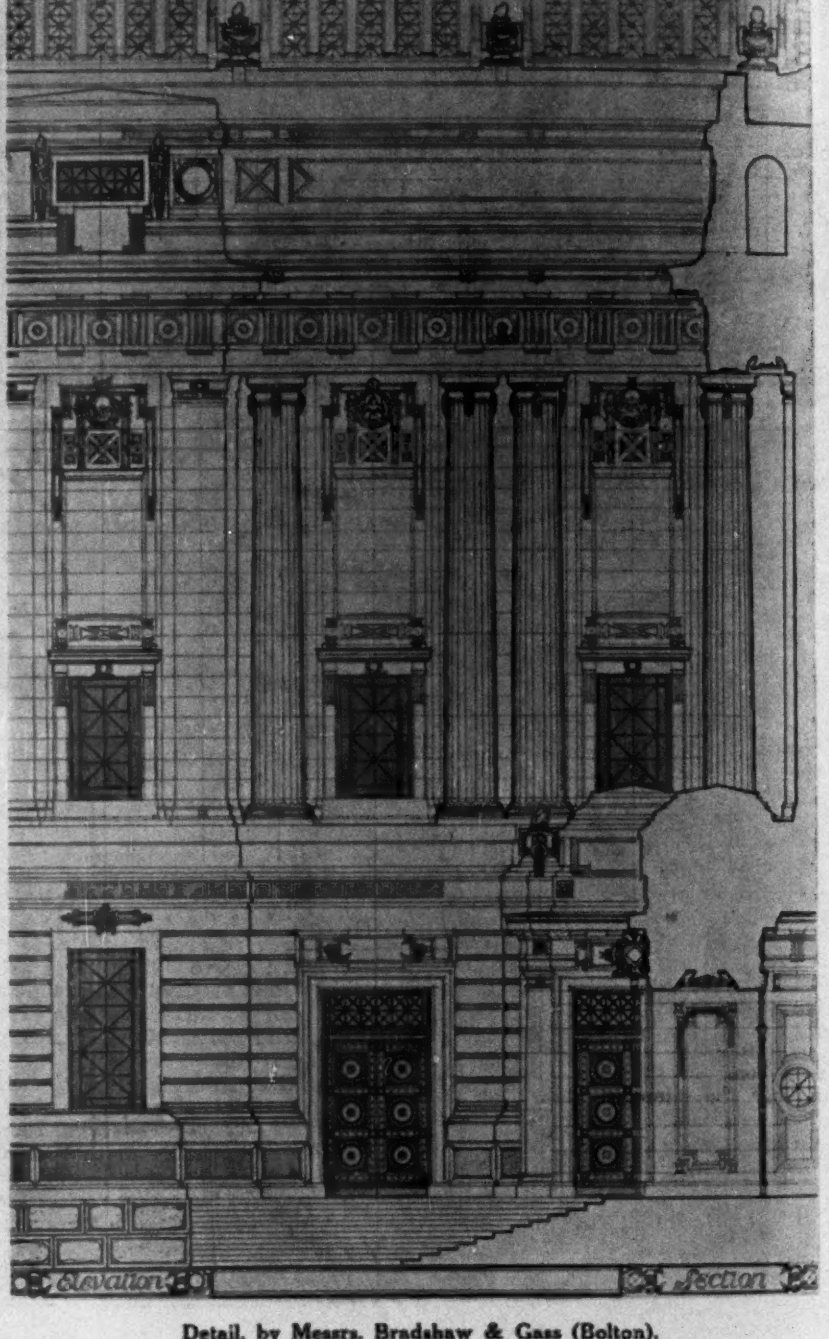


By Messrs. Bradshaw & Gass (Bolton).

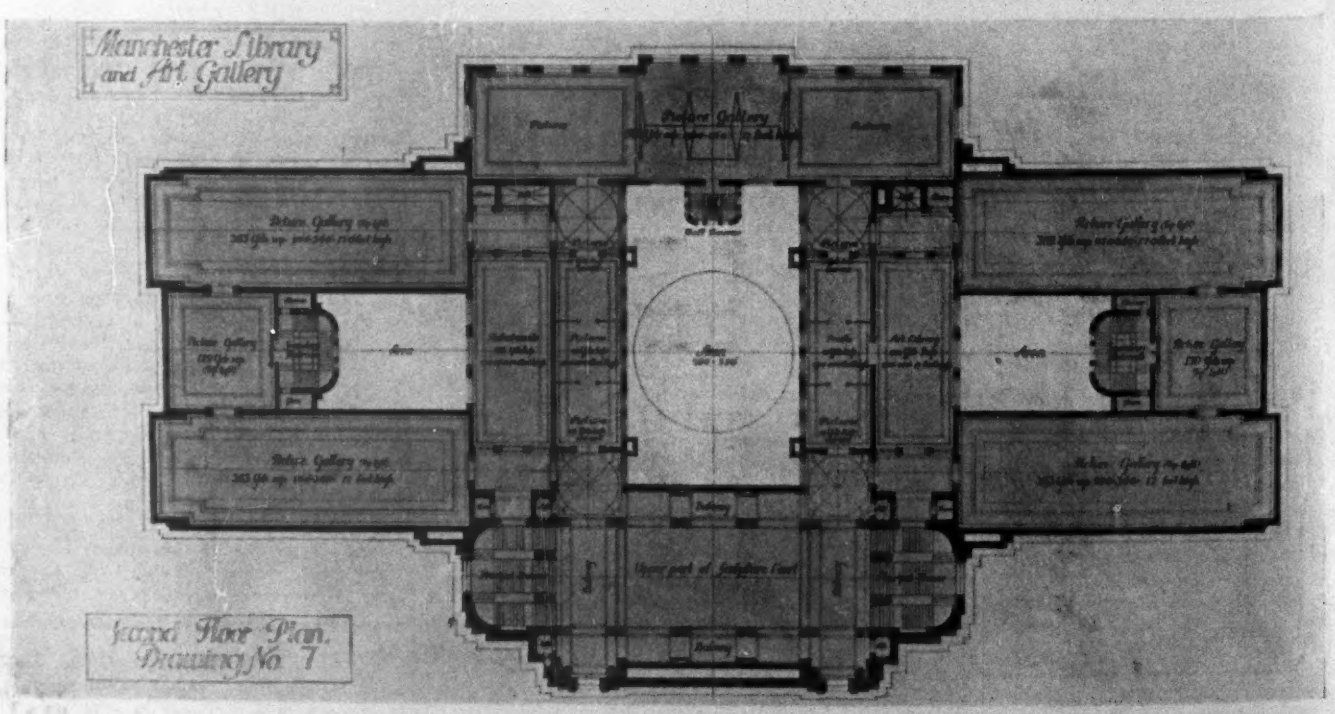
to carry his main entrance through from the front underneath it into a central hall and staircases. His reference library is placed at the back, and the other rooms run round all the frontages of the building. He thus secures good approaches to the various rooms, though, on the other hand, the staff is necessarily somewhat scattered. Above the central hall is placed the sculpture court, with access on all four sides to the museum galleries, thus giving a particularly attractive plan for these floors—the simplest, and at the same time one of the most effective, in its internal effect, of all the designs submitted. Unfortunately the means Mr. Atkinson adopts to secure the continuity of his library suite necessarily results in a mean and inadequate entrance, cramped in height and altogether unworthy of a building of this importance. The external treatment, while broad and dignified, displays defects of proportion very unusual in Mr. Atkinson's designs.

The design by Messrs. Bradshaw & Gass is an excellent example of the central reference library type, with a good entrance hall in front and stack-room at the back—the latter rather too wide, considering that it is lit from one side only. The four rooms for magazines, music, art, and technical books are well arranged in pairs, forming the front and back of the two wings, and the whole plan of this floor is well schemed from the point of view of control. It might be felt that access to the magazine-room should be more direct; but if it were brought to the front the staff would not be grouped in the compact way that forms so notable a feature in this plan. The main entrance hall, which serves both library and art gallery, is carried up through the mezzanine floor, giving it ample height for an impressive effect and materially improving the lighting. A staircase at each end leads up to the well-proportioned sculpture court on the first floor, which forms the entrance hall of the principal museum floor. A series of sculpture galleries runs all round the central area that gives light to the reading-room, and other museum departments occupy the two wings, the circulation being excellently managed throughout.

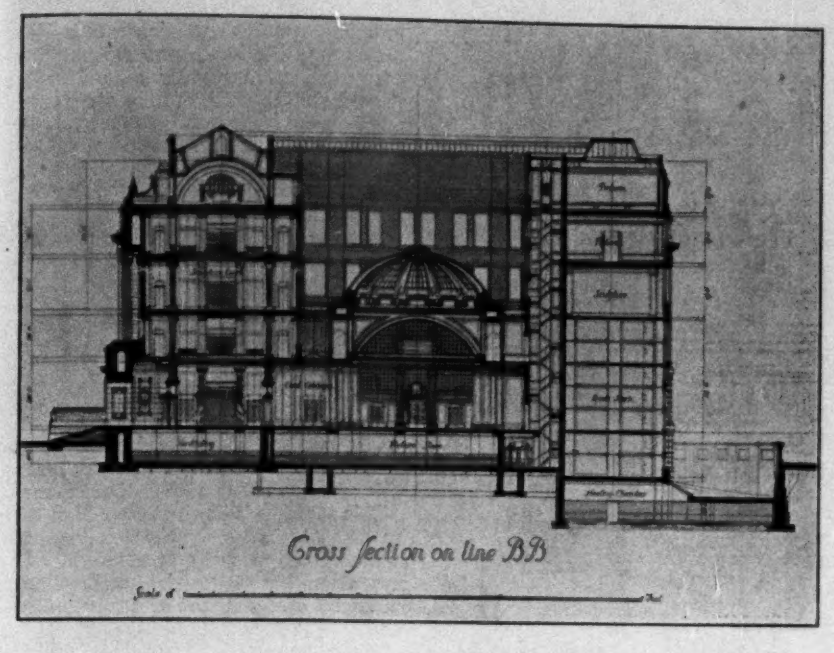
The second floor is mainly devoted to picture galleries, those in the two wings being top lit, while the centre block is carried up another story giving an additional group of top-lit galleries, which are thus conveniently grouped for allocation to loan collections. Besides the main entrance in the front, each end of the building has an entrance and staircase up to the second floor.



Detail, by Messrs. Bradshaw & Gass (Bolton).



By Messrs. Bradshaw & Gass (Bolton).



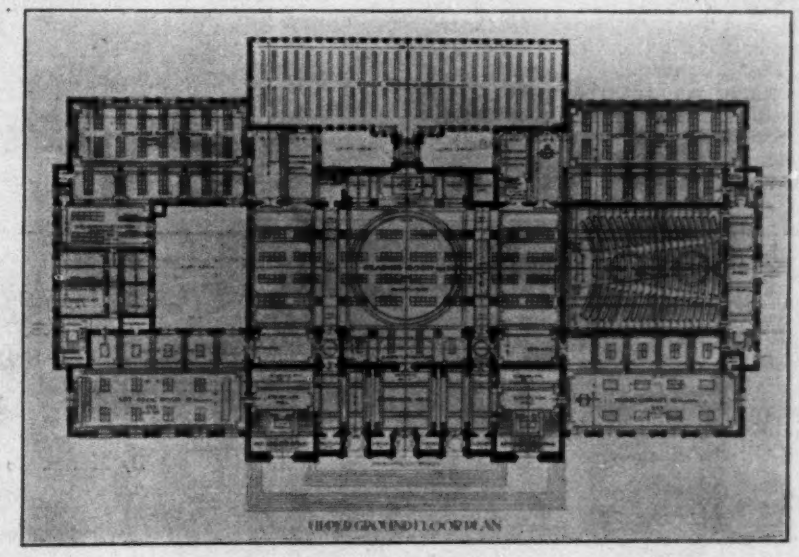
By Messrs. Bradshaw & Gass (Bolton).

The design for the exterior shows a good sense of mass and proportion, but unfortunately seems to have been conceived without regard to that of the interior; thus the main horizontal division does not mark the level of the principal floor, but one of minor importance internally, with the result that the two tiers of windows above it look rather unhappy, and in the section the internal design shows itself as absolutely falsified by the external treatment.

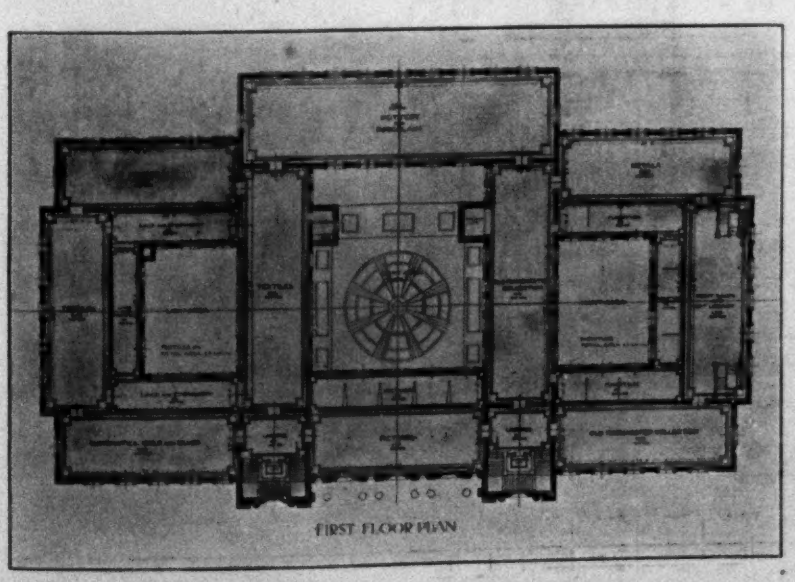
The design by Messrs. Cooper & Slater has several marked similarities to that submitted by Messrs. Bradshaw & Gass. The arrangement of the library on the ground floor is almost identical, except that the lecture hall is worked in between the two rooms in the west wing. The way through the reference library to the rooms at the back is not quite so well managed, but the book stack has rather better lighting. The upper floors are also very similar in their general scheme, but the difficulties of embodying all the complex requirements in one homogeneous block of buildings have proved rather too much for the authors' powers of design. The central loggia is absolutely illusory as the expression of any architectural purpose, masking, as it does, two floors and bits of two others at the top and bottom, while the break in the basement line, unhappy in itself, is difficult to justify, as necessitated by essentials of the structure.

Messrs. Warwick & Hall have a compact and businesslike arrangement for their library floor, and are also able to find space at this level for the two lecture-rooms. The entrance hall and staircases can hardly be regarded as architecturally impressive, but the limitation of the building area must be considered as partly responsible for this. The proportions of the various rooms are carefully studied, and advantage is taken of the extra height of the large reading-room to obtain light over the technical and magazine rooms at the ends to supplement that from the central dome. Perhaps the position of the main sculpture hall in relation to the principal staircase is hardly an ideal one, and the upper floors generally do not give any opportunity for striking architectural effects; at the same time, the rooms are all well lit and conveniently arranged for the purpose in view.

To Mr. A. G. Henderson we must offer our condolences on the loss of his partner, Mr. J. R. Hacking, in conjunction with whom he won his place in the second stage of this competition. His design also belongs to the group in which the plan is based on a central reference library, which is continued at each end as magazine and technical rooms, also top lit, while beyond these are the art and music libraries. This arrangement makes the library service particularly compact and convenient. The book stack at the back is fairly well lit, and a hall in front opens on the right and left into the staircases up to the art gallery. The main rooms of the library are too low in their proportions



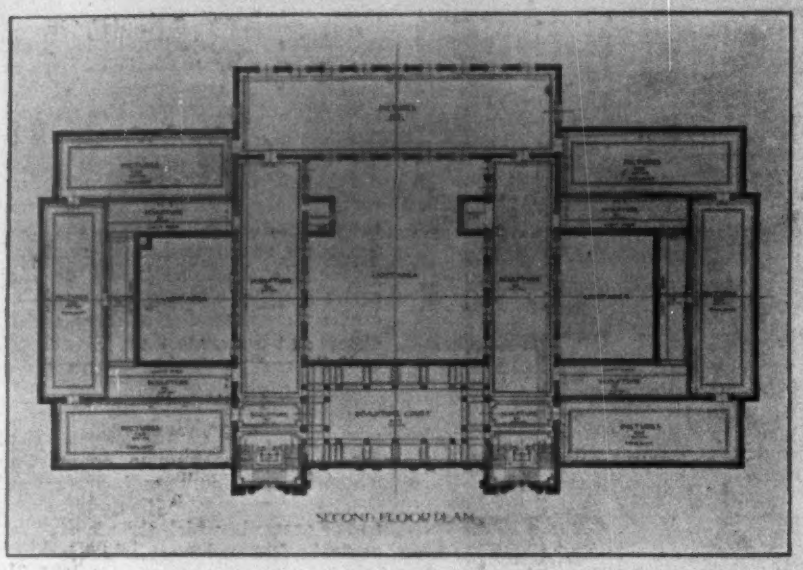
By Messrs. Cooper & Slater (Blackburn).



By Messrs. Cooper & Slater (Blackburn).

and would be anything but impressive, although good in arrangement. Neither would the art galleries over be very interesting from an architectural point of view, though the central court is spacious and well placed. Externally the design well expresses the internal treatment, though it is a little unfortunate that the main cornice should come halfway up the walls of the picture galleries. The details of this design are characterised by severity and restraint. The too ingenious method of obtaining projections for the circular staircases is crudely worked out, and the worst feature of this design.

One of the ablest designs submitted is that by Messrs. Worthirgton & Son, which but for a weakness in the staff arrangements for the library would probably have stood a very good chance of success. The rooms are well lit and well proportioned, while a consistent architectural scheme is maintained throughout. Externally this is one of the most pleasing designs submitted, displaying the restraint and dignity that Mr. Blomfield admires in the successful one, and at the same time giving a very good suite of galleries for museum purposes. The position of the stack-room in the basement is a disadvantage shared with the winning and Mr. Atkinson's designs, but on such a limited



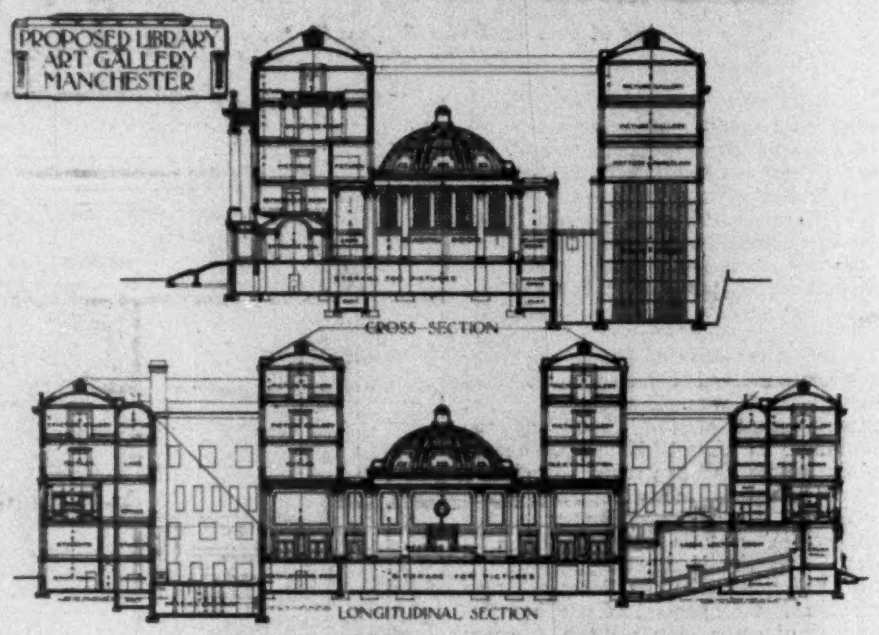
By Messrs. Cooper & Slater (Blackburn).

site it may fairly be contended that this is a lesser sacrifice than the curtailment of the ground-floor area, if that be the alternative.

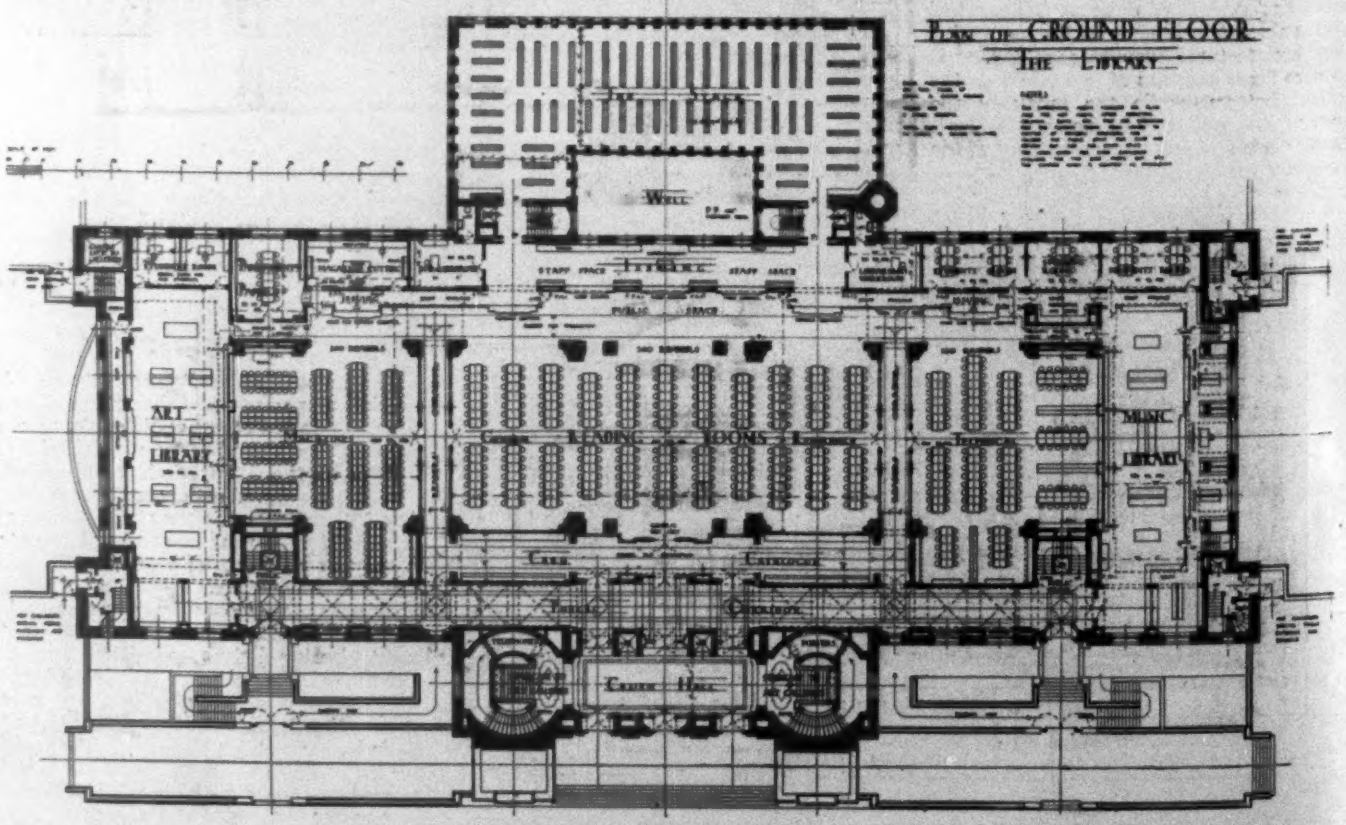
It must be counted as a merit in Mr. F. W. Simon's design that it architecturally expresses the large reference library—certainly the most important room in the building—and that with this achieved the rest of the accommodation is provided in workable form. That this remainder does not suffer to some extent can hardly be contended; the three main staircases are too equal in importance to be satisfactory as a means of approaching such an important public building as an art gallery, while the value of the sculpture gallery as a central feature, so definitely felt by many of the competitors, is here lost by its virtual detachment. The library, though not impracticable in use, is certainly inferior to those where the main rooms are grouped on a single floor, and the galleries do not give the same facilities for circulation that may be found in most of the other designs. However, Mr. Simon must be congratulated on having produced a very impressive design, though some exception must be taken to the means he adopts in building up his architectural masses out of a number of unimportant rooms. It is not easy to conceive why Mr. Simon, having felt so strongly the value of expressing externally the importance of the large reading-room, should have been content to have added the terminal pavilions without making them bear any definite relationship to the internal design of his building.

The design by Messrs. H. Percy Adams & Chas. Holden looks at first sight somewhat confused, but on closer study it will be found that the arrangements are practical and generally convenient, though they hardly suggest interesting effects architecturally. Roughly speaking, in this design the building is divided vertically, the front half being given to the museum galleries and the back to the library, which can be entered from the back or through the sculpture court, which forms the entrance hall of the museum.

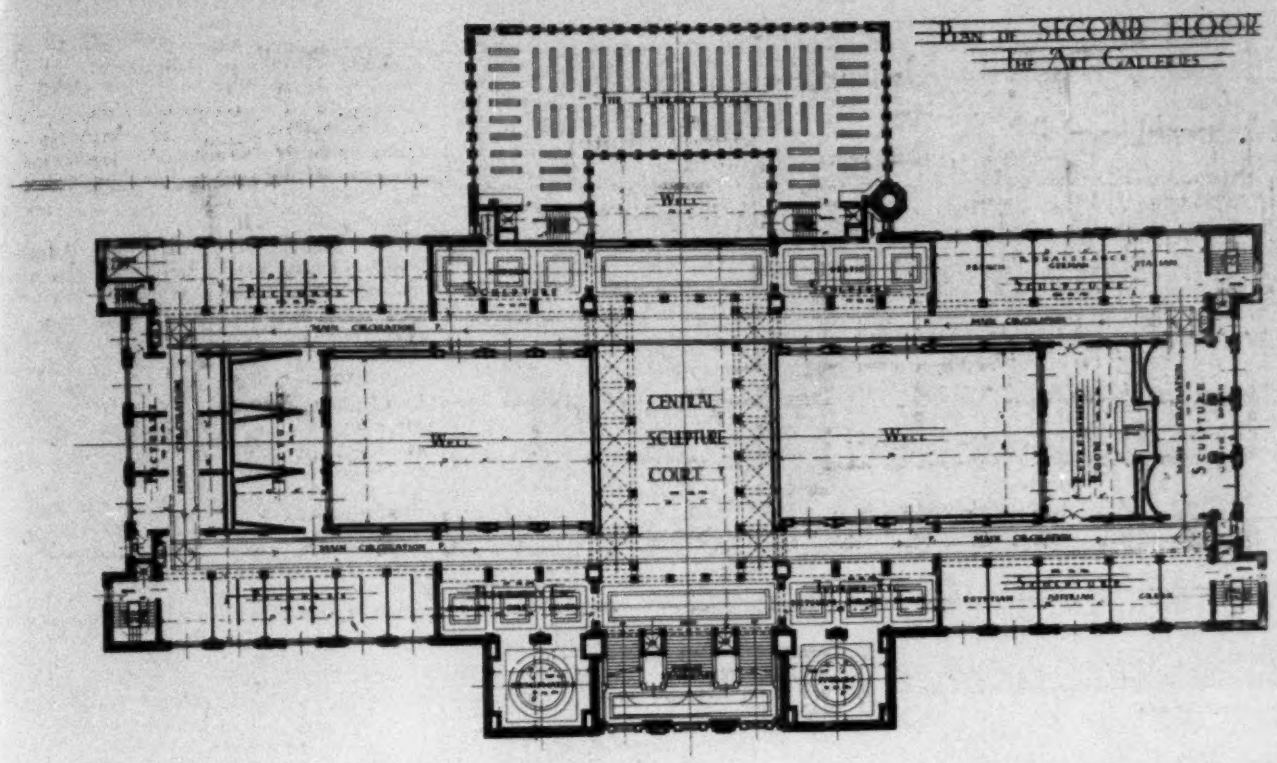
This solution is distinct from that adopted by any other among the ten competitors. It does not appear to us the right one, and presents many difficulties, and must have entailed a vast amount of study to make it

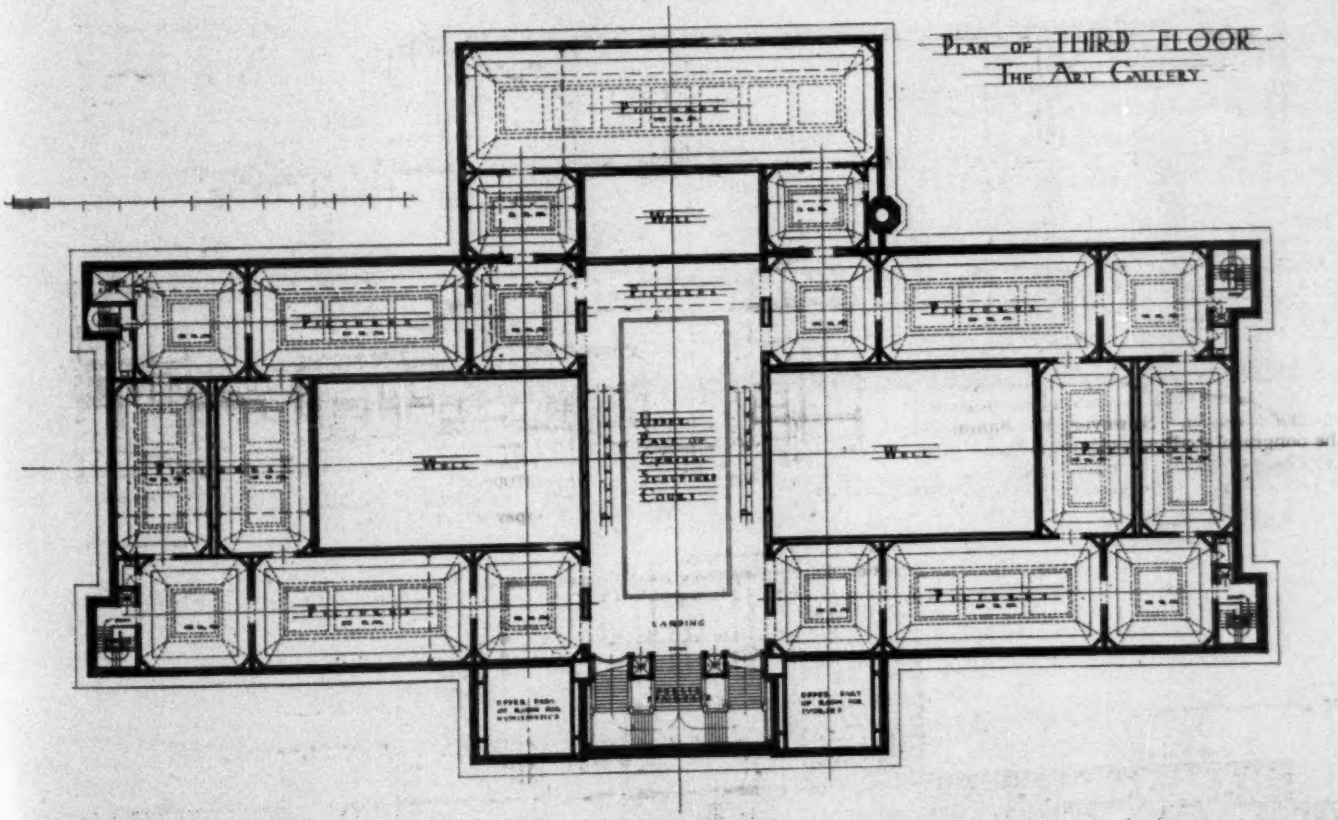


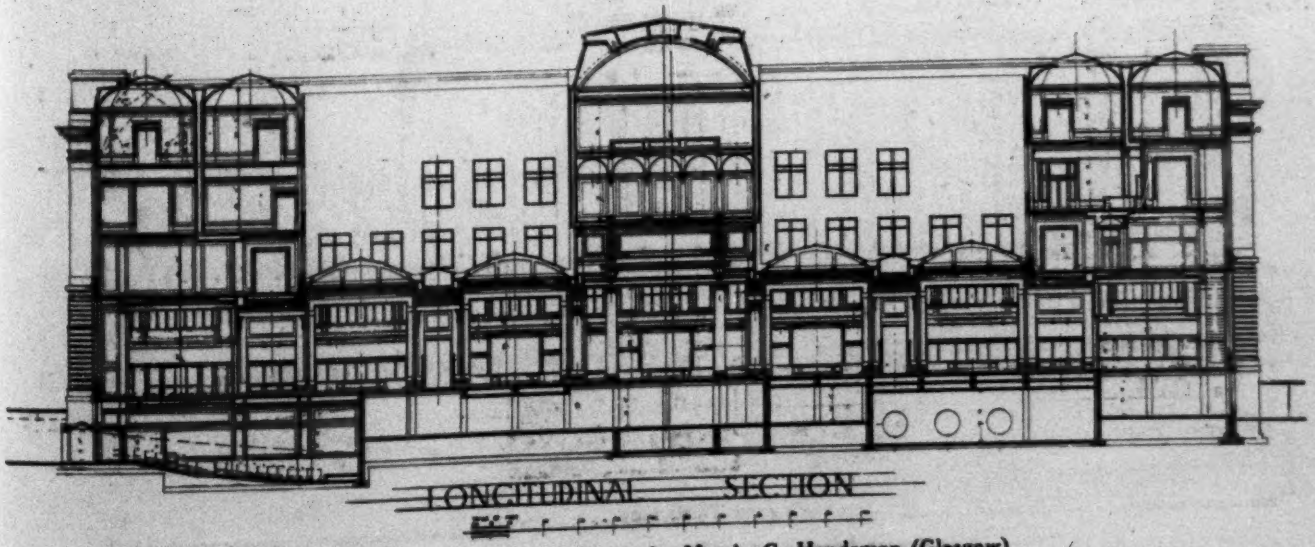
By Messrs. Cooper & Slater (Blackburn).



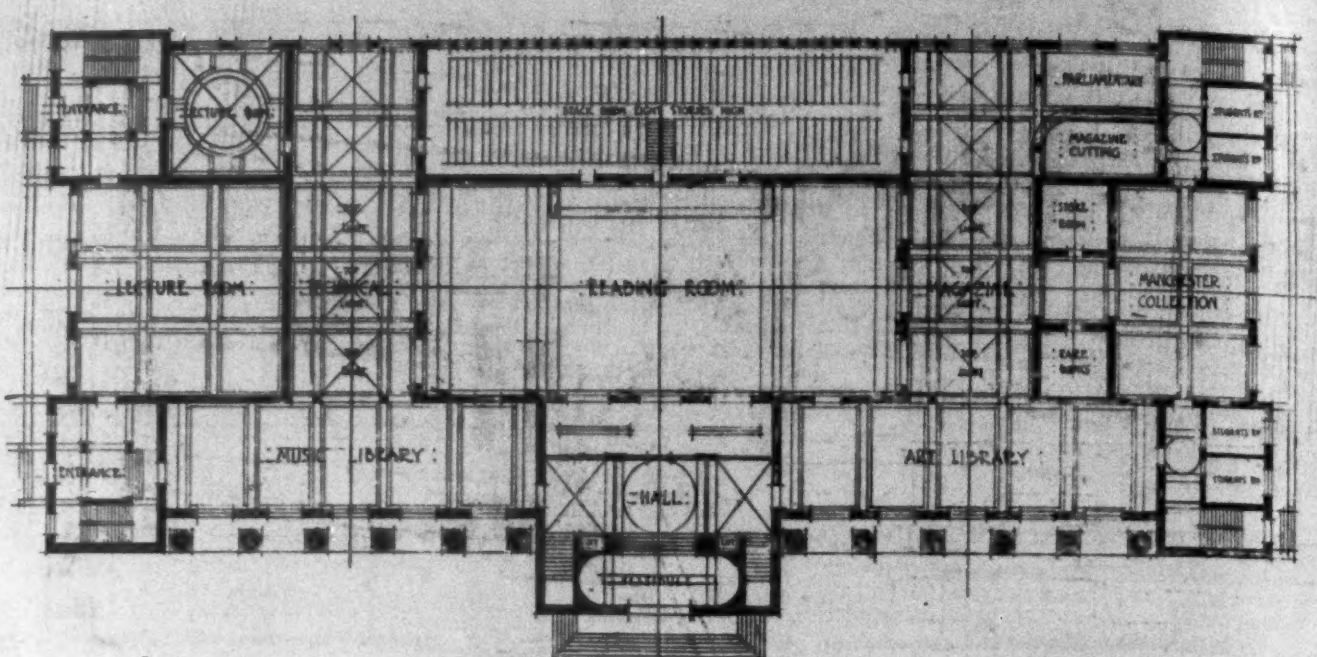
By Mr. A. G. Henderson (Glasgow).



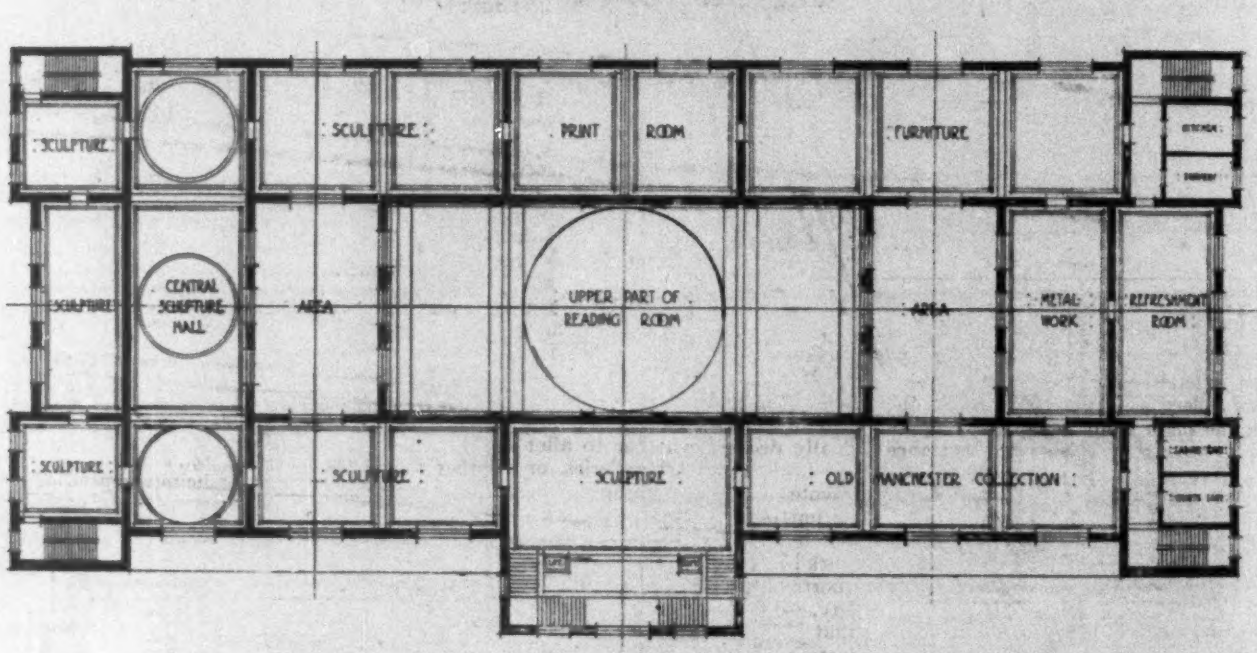




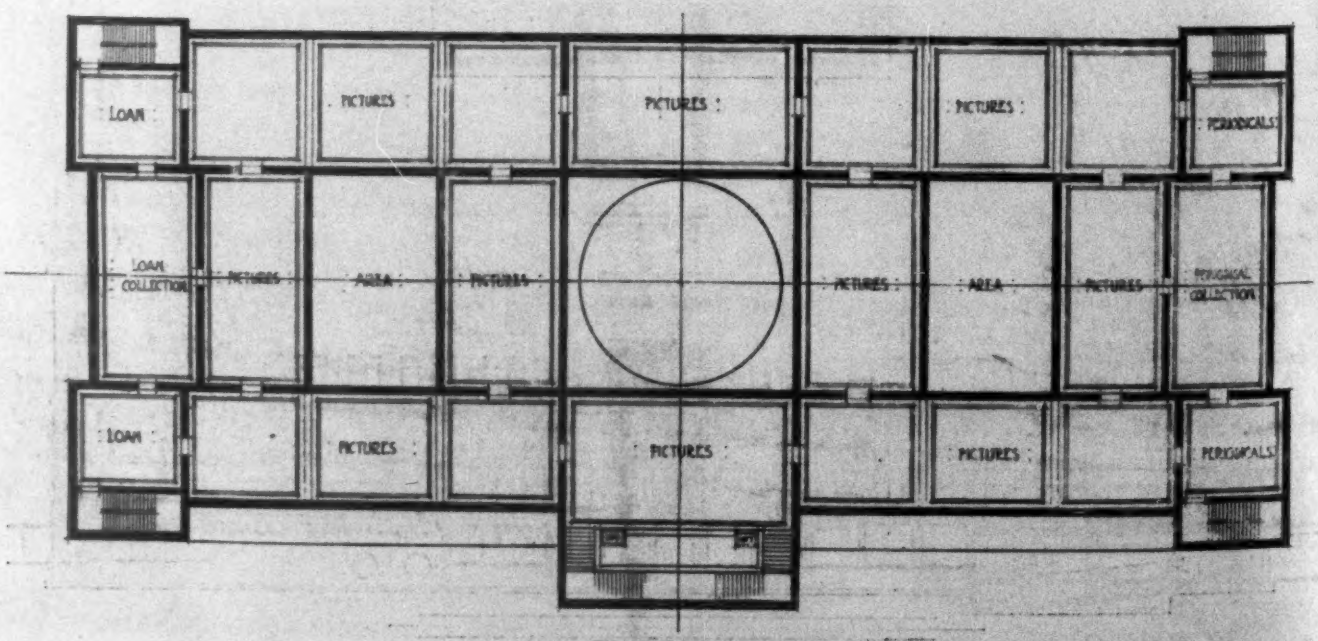
Manchester Library, etc.: Design by Mr. A. G. Henderson (Glasgow).



Ground Floor.

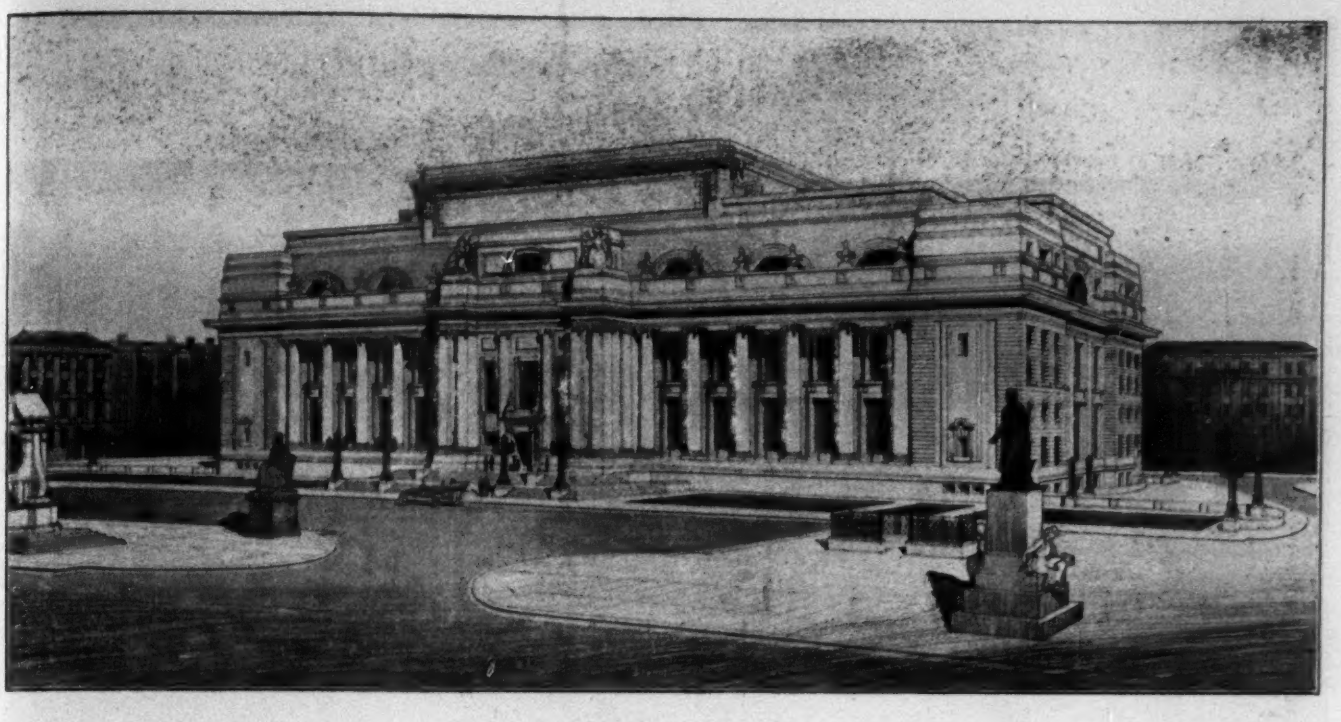


Second Floor.



Third Floor.

Manchester Library, etc.: Design by Messrs. Warwick & Hall.



By Messrs. Warwick & Hall (London).

practicable. That Messrs. Adams & Holden have succeeded in doing this is a magnificent testimonial to their ability and perseverance. All the same, we cannot but think that they would have done better if they had worked in the lines of horizontal rather than vertical separation between the two distinct institutions, which it was the problem of this competition to combine in a single building.

Mr. R. F. Farrar's design has a central reference library, but varies from those previously described in that one-third of the ground floor is given up to the sculpture court and galleries, which form the entrance to the art gallery from the east front of the building, the main front being given up to the library entrance, or rather the entrance to the reference library, the route to the remaining rooms being architecturally ineffective. The minor libraries occupy two floors of the block corresponding to the sculpture court. Apparently these rooms are intended to be entered either by passing round the reference library or from an unobtrusive door on the west front; whichever alternative is adopted the approach to the large double staircase provided is quite inadequate. In this design the library staff would be badly scattered and the library almost unworkable as planned. On the upper floors adequate lighting is provided, but that is about the only merit they can claim.

While the external treatment conveys an impression of mass and dignity, this is secured only by an entire disregard of the logical connexion between it and the building it contains. A glance at the plans show how absolutely the scale of the interior is at variance with that of the façades. It is difficult to see why this design came to deserve inclusion in the selected ten.

As the Manchester Corporation has not finally decided whether to allot the site to the library and art galleries, or whether to devote it to the provision of a new exchange, no immediate steps can be taken in starting the building. It will be regrettable if the work involved in this competition is rendered abortive by a change of public opinion in the city, as, though we cannot express the view that the successful design is entirely satisfactory, the conditions are so much to blame for its defects that no doubt it would be very greatly improved in execution, and we could confidently look to Messrs. Crouch, Butler, & Savage to give Manchester a fine building, thoroughly well suited to its requirements.

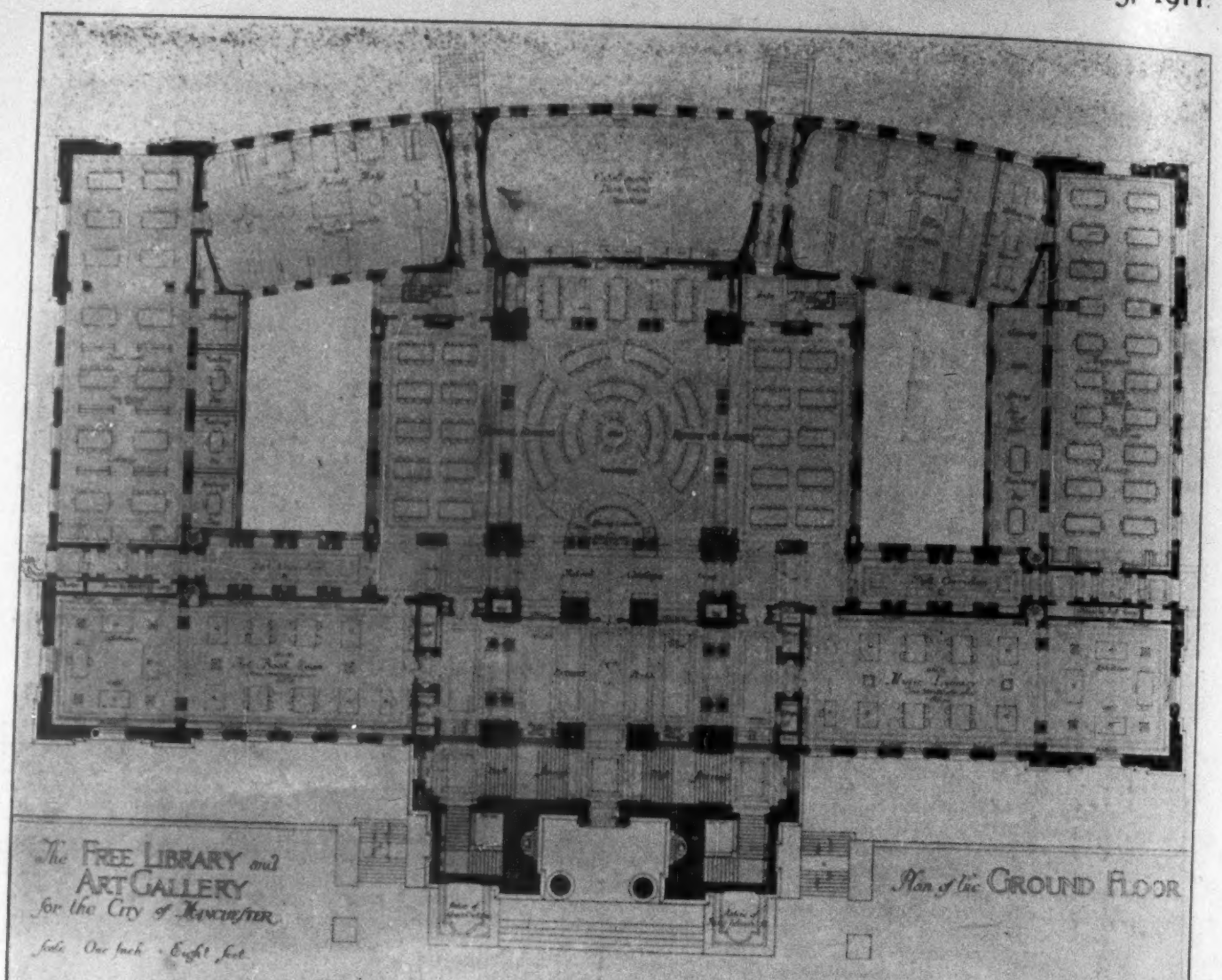
EARLY CHRISTIAN MOSAICS.

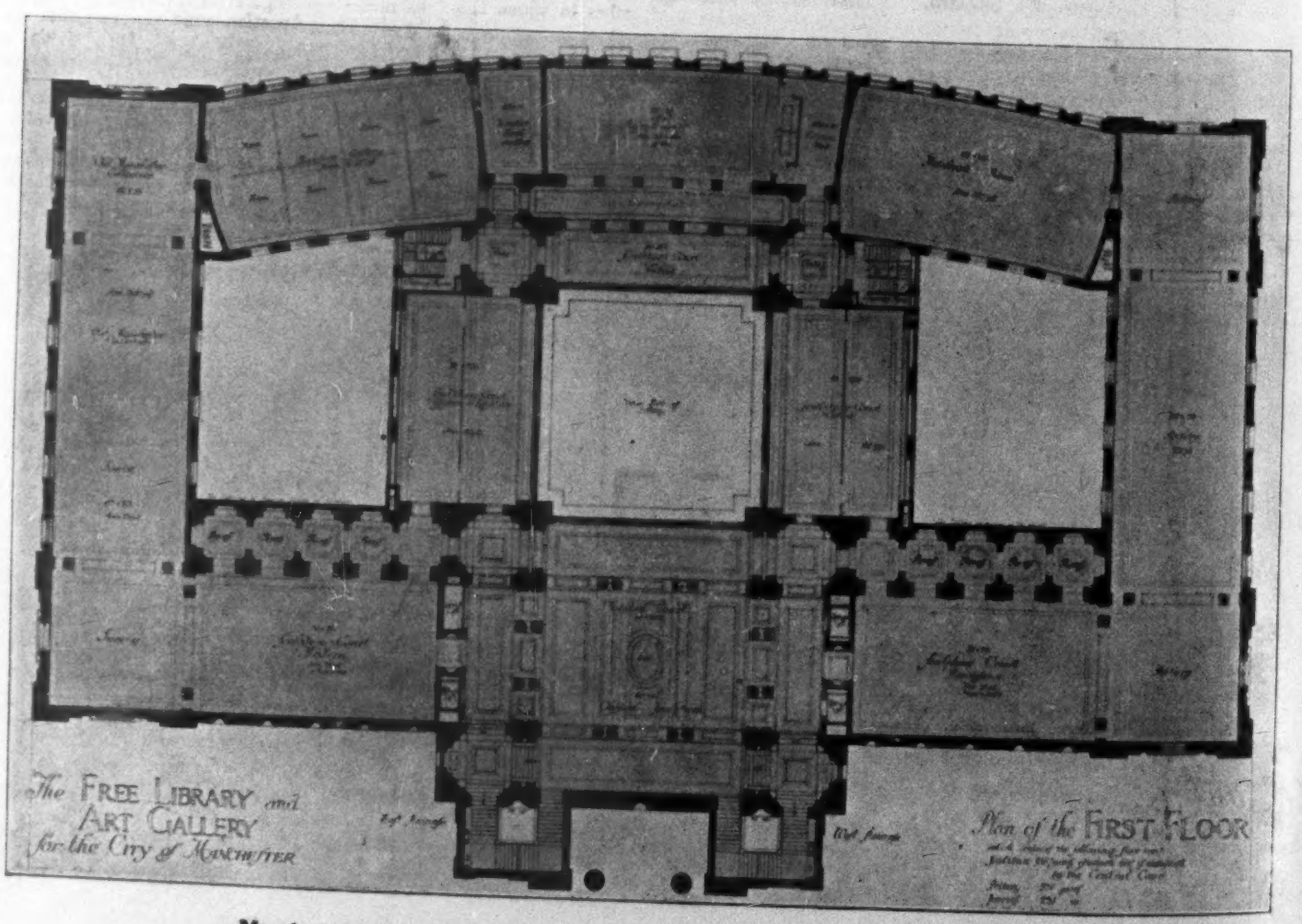
AT King's College, on November 29, Mr. G. McN. Rushforth, formerly head of the British School at Rome, lectured on "Christian Mosaics," and in the course of his remarks he said:—

"The two essential features of mosaic as a decoration of walls or vaults are:—(1) Solidity, which makes it peculiarly appropriate to its setting in a monumental building; (2) texture, the network of lines formed by the tesseræ being analogous, *e.g.*, to the stitches in tapestry. Any attempt to imitate a painting (as in the modern mosaic copies of the original oil paintings over the altars in St. Peter's at Rome) is an abuse of the art.

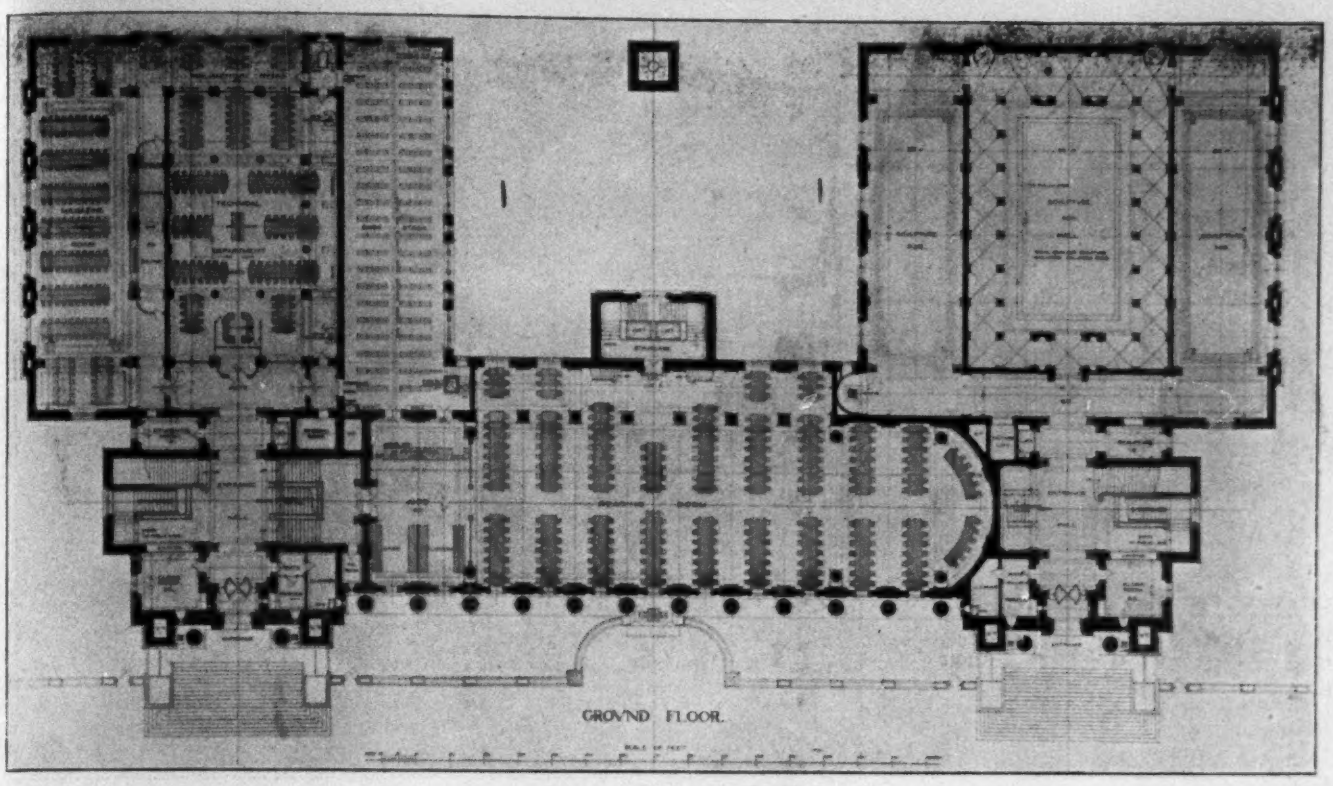
The apparently sudden efflorescence of the art of pictorial Christian mosaic in connexion with Constantine's churches must have been due to a favourable combination of conditions, such as the development which was taking place in Roman architecture in the matter of

By Messrs. Worthington & Son (Manchester).





Manchester Library, etc. : Design by Messrs. Worthington & Son, (Manchester).

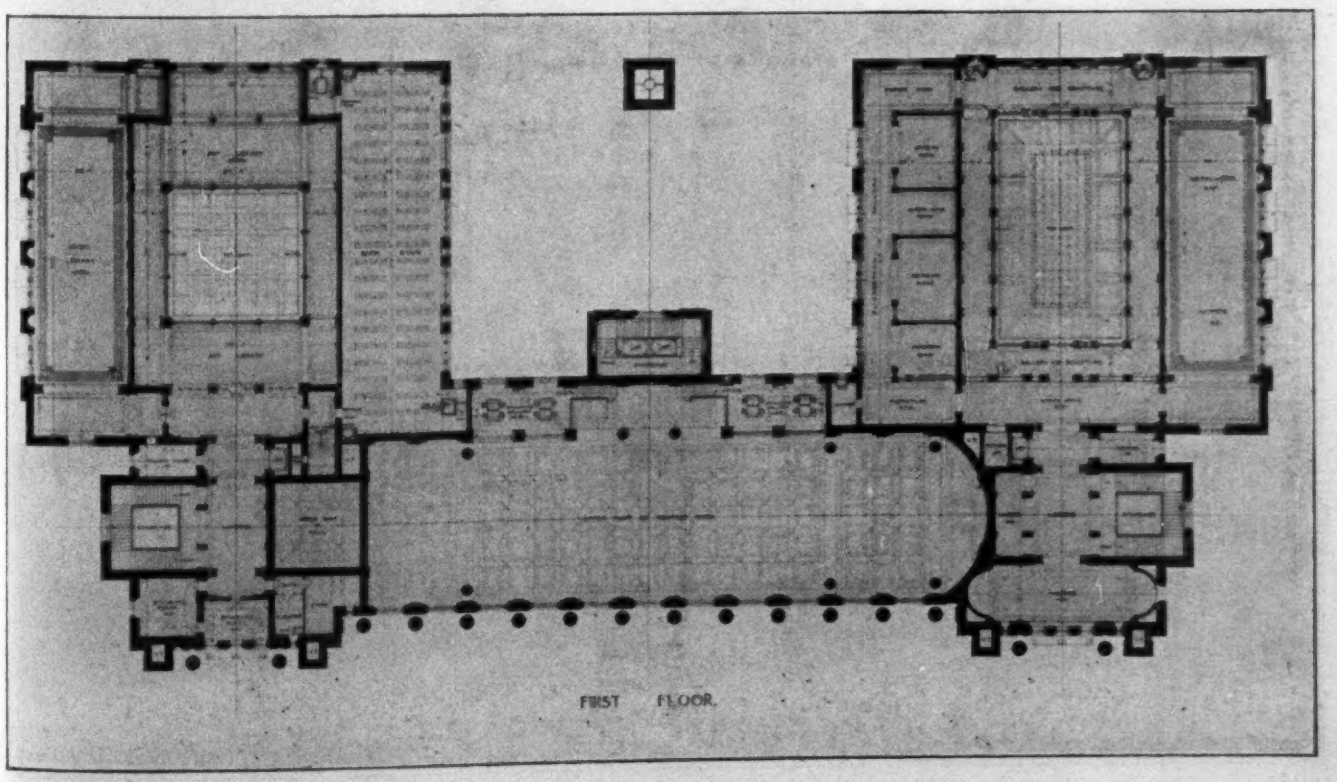


Manchester Library, etc.: Design by Mr. F. W. Simon.

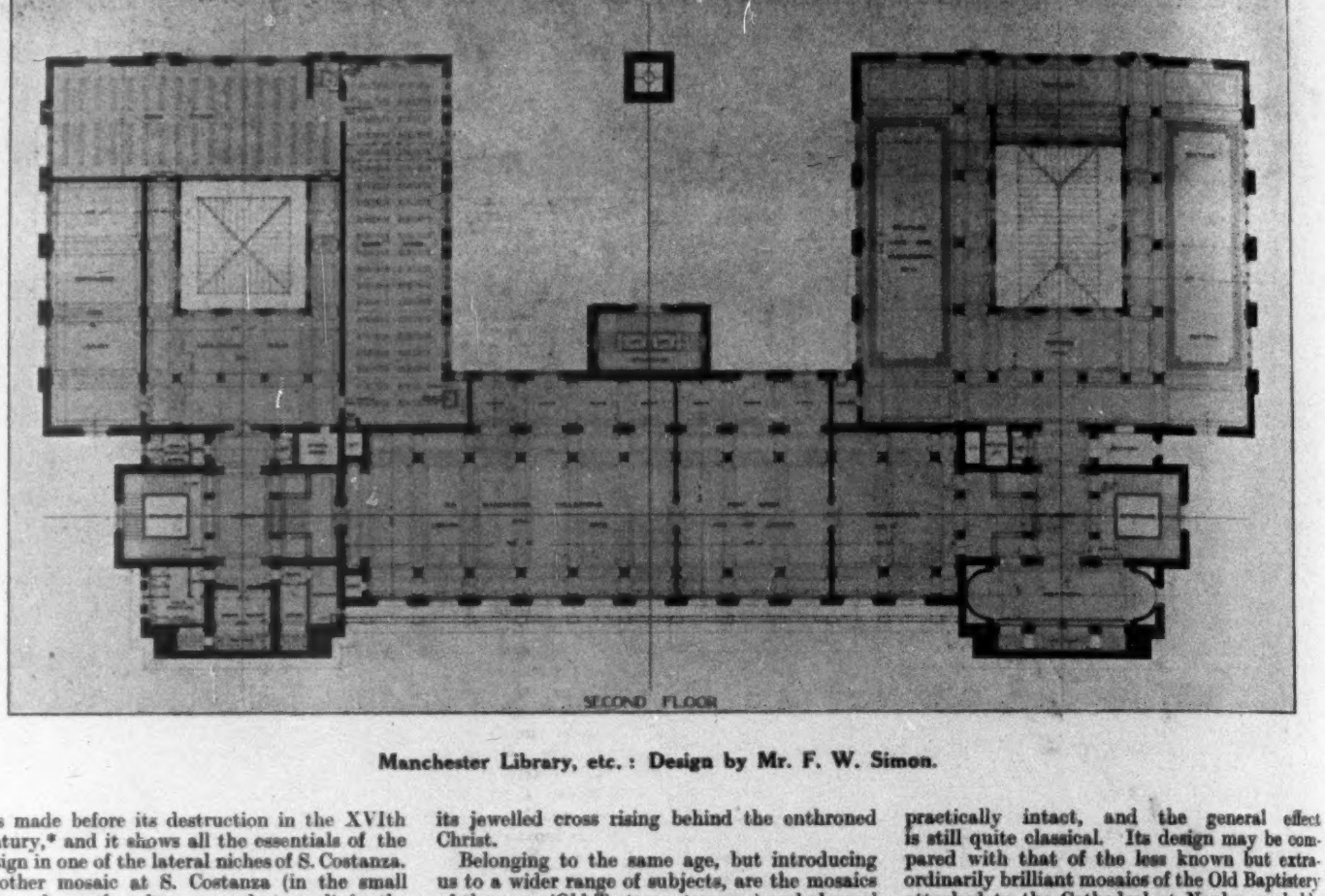
dome and vault construction, and the coming into existence of the Christian basilica or church, which, in spite of its prototypes, was a new form erected for a new purpose, and as such demanding a new kind of decoration. But all artistic forms have origins. Unfortunately, in the case of mosaic the evidence is too fragmentary for us to trace its continuous development from its original use as a pavement to the pictures on the apse or wall surfaces of a Christian church. The passage from the floor to the roof had already taken place before the end of the Ist century A.D., as was noted by Pliny*; but the Nymphæum at Monte del Incastro, pointed out by Dr. Ashby,† with its dome, "decorated with plain white mosaic, which is almost perfect," shows that by the latter half of the next century the development had not gone far, especially as the plain white dome is contrasted with the decorative treatment of the niches in the walls of the building. No doubt as time went on regular pictures began to appear on the walls and vaults; but the secular buildings which contained them have disappeared or been stripped of their decorations. Thus the Palace of Diocletian at Spalato has traces of mosaics on its vaults, but, unfortunately, not sufficient to show their character or subjects. In default of actual examples, we may get an idea of what mosaics in palaces or other secular buildings were like from some of the early mosaics in churches in which the Christian element is very small or entirely absent. Such is the mosaic of the apse at the eastern end of the vestibule of the Lateran Baptistery (now the chapel of SS. Rufiana e Seconda), with its splendid design of acanthus scrolls, so characteristic of Constantinian art. Another Constantinian building, the round church of S. Costanza, has on the vault of its circular aisle decorative designs in mosaic of a purely secular character, which might have appeared on the roof (or, for the matter of that, the floor) of any classical or pagan building.

S. Costanza contained other mosaics of a definitely Christian character. Those of the dome are lost, but those of the two main lateral niches survive, more or less, and are of great importance as showing that the typical design for the apse mosaic in the great Christian basilicas—the figure of Christ accompanied by the Chief Apostles, amid various symbolical adjuncts, sheep, palm-trees, etc.—belongs to the age of Constantine. The original apses of his great basilicas in Rome have all perished, but a record of the mosaic in that of St. Peter's

* Nat. Hist., xxxvi., 64.
† "Papers of the British School at Rome," iii. (1906), 104.



Manchester Library, etc.: Design by Mr. F. W. Simon.



Manchester Library, etc.: Design by Mr. F. W. Simon.

was made before its destruction in the XVIth century,* and it shows all the essentials of the design in one of the lateral niches of S. Costanza. Another mosaic at S. Costanza (in the small dome above the altar, now destroyed) in the same way exhibited the main features of the well-known apse mosaic of S. Pudenziana at Rome, which, though it belongs to the end of the IVth century, may be classed artistically with the works of the Constantinian age. Among those features are the two female figures representing the Church of the Circumcision and the Church of the Gentiles (as in the rather later mosaic of S. Sabina). Still more interesting are the buildings forming the background to Christ and the Apostles, which are now believed to represent the churches erected by Constantine and his mother over the Holy places at Jerusalem, grouped around the hill of Calvary, with its jewelled cross rising behind the enthroned Christ.

Belonging to the same age, but introducing us to a wider range of subjects, are the mosaics of the nave (Old Testament scenes) and chancel arch (The Nativity of Christ) in S. Maria Maggiore, which cannot be separated artistically, and probably belong to the middle of the IVth century. They are the best examples we have of the "classical" style, and their technique may be studied in the unequalled reproductions in Dr. Richter's book,† which is indispensable for the subject, though its particular theory as to the date cannot be sustained.

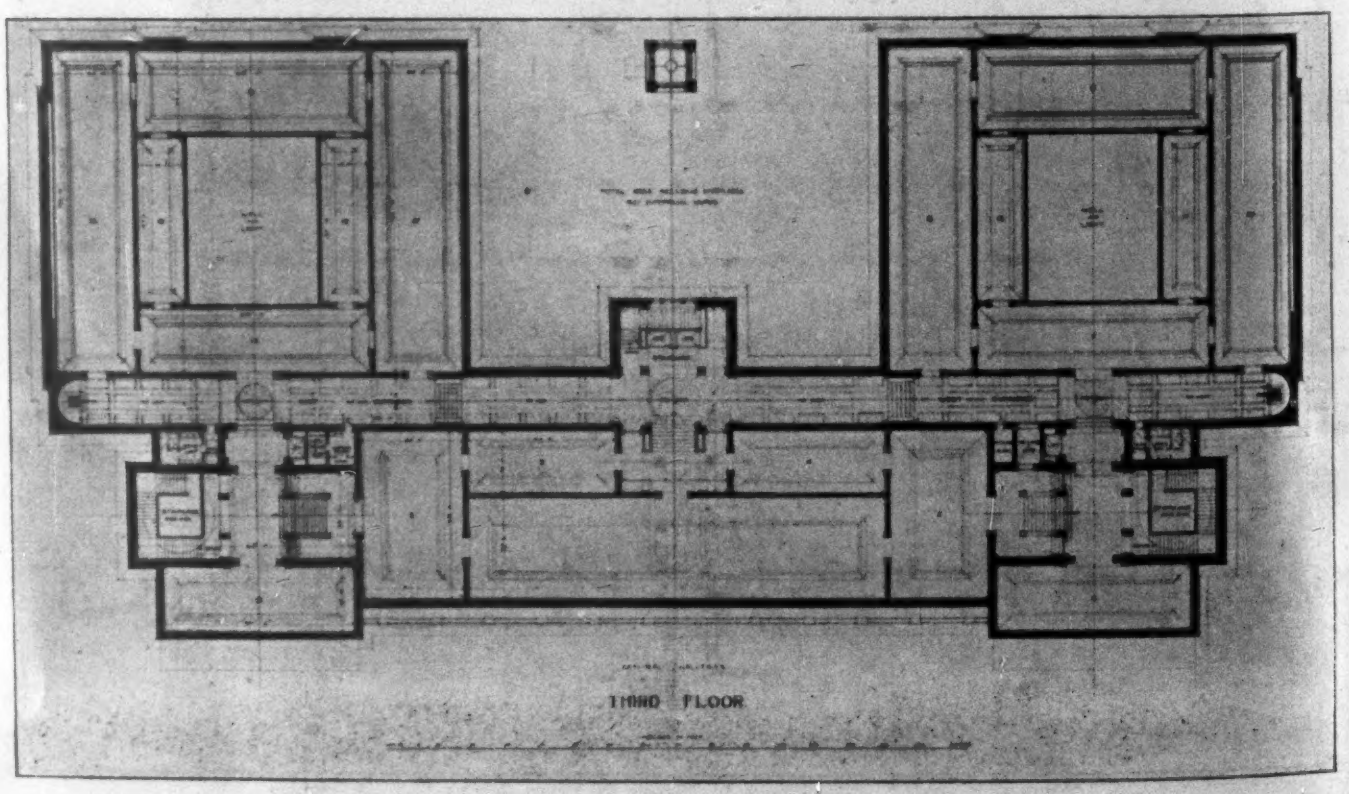
For typical mosaics of the Vth century we must turn to Ravenna, which became the Imperial residence in 402. In the mausoleum of Galla Placidia the decorative scheme is practically intact, and the general effect is still quite classical. Its design may be compared with that of the less known but extraordinarily brilliant mosaics of the Old Baptistery attached to the Cathedral at Naples, probably belonging to the same period, but rather later.* The Orthodox Baptistery at Ravenna also retains most of its original decorations, and here we get the complete treatment of a dome in mosaic. The lower zone of this, with its architectural designs of "classical" origin, may be compared with the similar treatment of the dome of St. George at Salonica.†

* Ciampini. *De Sacris Aedificiis*, Tab. xiii.

† "The Golden Age of Classic Christian Art." By J. P. Richter and A. Cameron Taylor. Methuen. 1904.

* G. T. Rivoira. "Lombardic Architecture" (Heinemann, 1910), Vol. i., p. 193, Fig. 273, shows the interior; and an article in the *Bollettino d'Arte del Ministero della Pubblica Istruzione*, iii. (1909), p. 217, gives a number of illustrations of the mosaics.

† G. T. Rivoira. "Lombardic Architecture," i., p. 14, Fig. 12; O. M. Dalton. "Byzantine Art and Archæology" (Oxford, 1911), p. 375, Fig. 221.

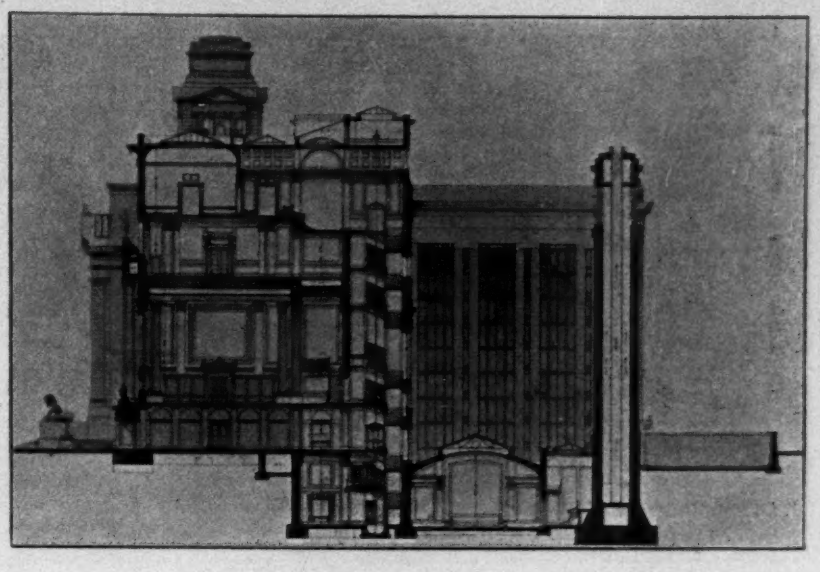


Manchester Library, etc.: Design by Mr. F. W. Simon.

So far the mosaics, while they are clearly the expression of the new Christian ideas, still preserve much of the form and feeling of classical Roman art. But meanwhile, and increasingly as time went on, a great revolution was taking place in the domain of art, which, when completed, meant the great contrast between the art of the ancient Græco-Roman world and that of mediæval Europe. One thing that brought about the change was the great decline in civilisation from the IIIrd century onwards. The standard of art always bears a certain relation to the standard of culture, and one result was that there were no longer artists capable of maintaining the ground won in the course of the long development of Græco-Roman art. There were moments of revival, and it was fortunate for early Christian art that one of these, the Constantinian Renaissance, was able to provide the new Christian conceptions with so much of form and method derived from ancient art, at a time when the tradition was still fresh and the impulse not quite exhausted. But in spite of such revivals, and in spite of the fact that some of the lessons of the past were never wholly forgotten, the general result was that the artist was replaced by the artisan and the individual observation of nature by a system of formal patterns. Figures are no longer naturally grouped in variety of attitude and gesture; they are rigid, isolated, conventional in gesture, always represented looking full-face out of the picture. Their surroundings, too, are conventionalised and schematic, and they no longer appear in the perspective of a realistic scene, but against a gold background.

The transition is well illustrated by the mosaics in S. Apollinare Nuovo (first quarter of the VIth century) at Ravenna. The upper scenes in the nave fairly represent the old tradition, but in the long procession of martyrs below them we seem to enter a new world. Not less striking in this respect are the well-known votive moving pictures of Justinian and Theodora in S. Vitale.

If we return to Rome we see the old designs and traditions being modified under the new influences. The apse mosaic of SS. Cosma e Damiano (525-530) recalls the design of the Constantinian mosaics, and we may say that all the majesty and grandeur of the representation is derived from its prototypes of the great age. We may even look on it as the last great work in the Constantinian tradition. Nevertheless, it is full of signs of the times. In particular there is no unity of action among the figures, who all look straight out of the picture as if they wanted to attract the attention of the spectator and thus detract from the impressiveness and significance of the scene. And this was a work carried out under the conservative *régime* of Theodoric. The Byzantine conquest of Italy, which really marks the end of the ancient world, introduced a period of increasing barbarism, and its results may be seen in the deterioration of the mosaics of this age in the Roman churches. Typical are those of S. Lorenzo outside the walls for the end of the VIth century, those of S. Venanzio at the Lateran for the VIIth, and those of S. Maria in Domnica and of S. Marco for the IXth. The last shows what the Roman tradition had sunk to, and with it the series of the old mosaics is brought to a close. Art almost ceased to exist till the first dawn of the Renaissance appears in the XIth century."



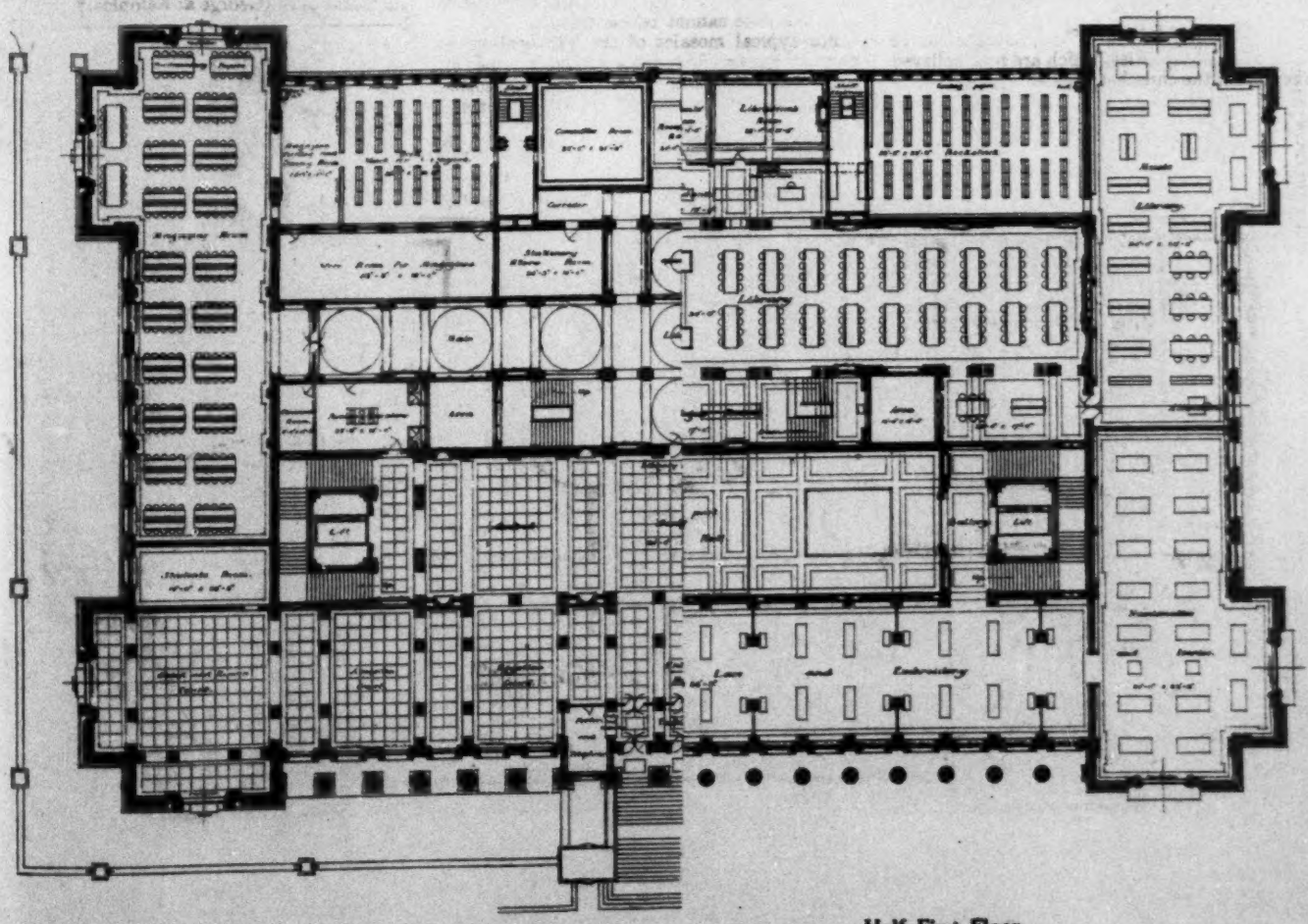
Manchester Library, etc.: Section, by Mr. F. W. Simon (Liverpool).

EARLY ROMAN CHURCHES.

PROFESSOR R. ELSEY SMITH delivered the fourth of the course of lectures on Christian Art, which are being given at King's College during the winter session, the subject being "Early Roman Churches."

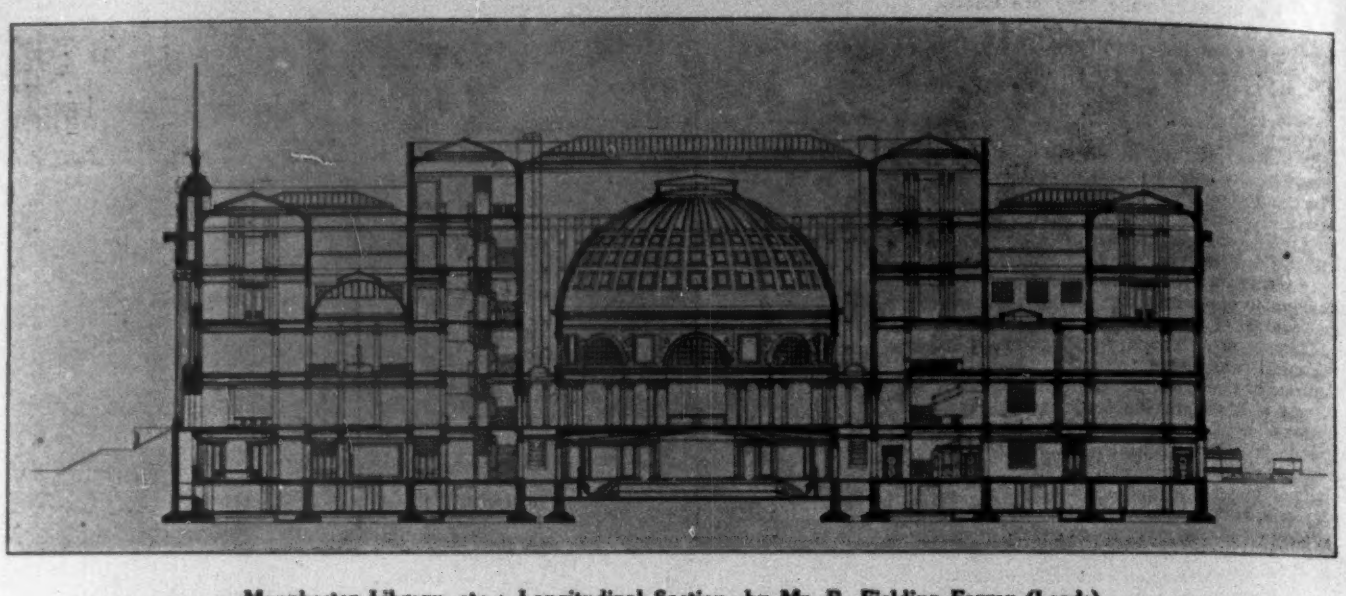
He referred to the troubled history of the Christian Church in Rome during the first three centuries of our era and its culmination in the fierce persecution under Diocletian, followed early in the IVth century by the recognition of the Church and the acceptance of Christianity by the Emperor. He referred to the privileges granted by the Roman laws to burial clubs and the advantage taken of them by the Christian community, and to the fact that even martyrs publicly executed were not refused the privilege of burial in their own catacombs, with the result that many of these tombs became objects of veneration, and in more settled times had churches raised over them.

The influential position of some of the



Half Ground Floor. Half First Floor.

Manchester Library, etc.: Design by Messrs. H. Percy Adams & C. H. Holden.



Manchester Library, etc.: Longitudinal Section, by Mr. R. Fielding Farrar (Leeds).

Roman convents even in the days of persecution was referred to, and the fact that in less troublous times meetings were held in private houses, some of which, in the case of such convents, probably did include a private basilica.

A general description of a typical basilican church followed. The Church of S. Clemente at Rome was utilised as an illustration of the plan of such buildings. The forecourt, the triple division of the building into nave and aisles, the position of the apse, and the enclosed choir, with the arrangement of the arcade, or the alternative treatment of a colonnade, carrying an architrave supporting the walls, pierced with a chantry above the arch roofs, were illustrated, while for the external treatment the Church of S. Apollinare at Ravenna was described as presenting now the least altered exterior.

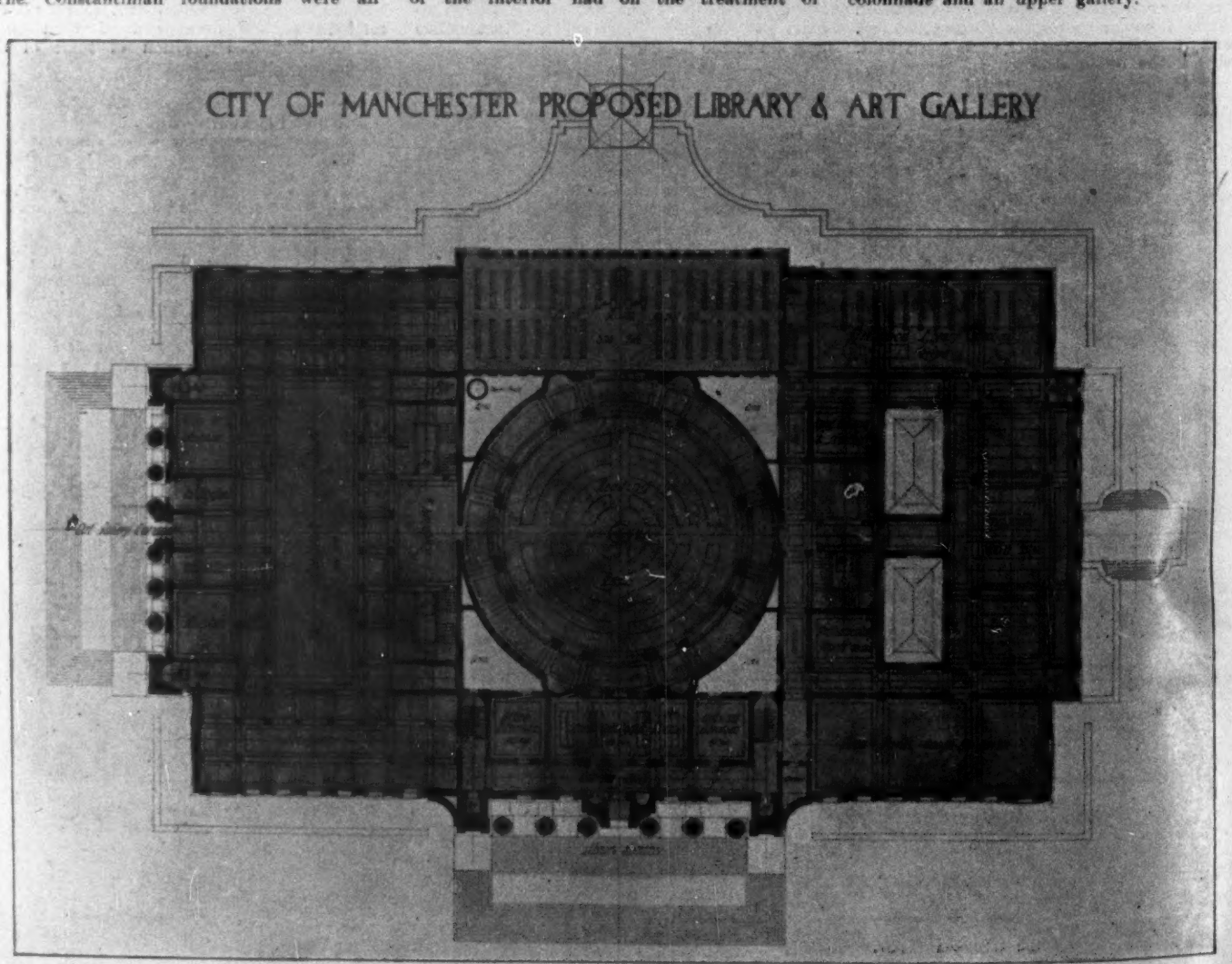
The Constantinian foundations were all referred to, and two of the great five-aisled examples—St. Peter's and St. Paul's—were described in some detail, and the special features of the planning and internal treatment of the two examples which still survive—S. Agnese and Lorenzo fuori le Mura—were fully illustrated, though it was pointed out that but little, if anything, of the actual structures could be considered with any certainty to belong to the earliest buildings.

Examples of some later foundations were illustrated, including S. Maria Maggiore and S. Prassede; so also were the floors both of early and later type, and the treatment of the screens, nimbus, ciboria, and other fittings.

The persistence of the basilican type of building, in spite of various modifications and variations in detail, was pointed out, and the important influence the establishment of this type of plan and the general treatment of the interior had on the treatment of ecclesiastical architecture in Western Europe, not only in Romanesque, but also in late periods.

In conclusion, the lecturer referred to the circular and polygonal buildings, pointing out that the tomb of S. Costanza belonged, as regards its system of construction, to that of late Imperial Rome, rather than to that of the basilicas themselves, with which the much larger circular building of S. Stefano Rotindo, however, conformed.

The polygonal type of buildings so extensively used, not only in Rome, but throughout Italy, was described, and attention was directed to the alteration in the character and treatment that had occurred in the earliest example still remaining in Rome, that of the Lateran basilica, which had been altered from a structure of a single story with an encircling aisle to one provided also with a two-storied colonnade and an upper gallery.



Manchester Library, etc.: Ground Floor Plan, by Mr. R. Fielding Farrar (Leeds).

THE BUILDING TRADE.

DAY WORKS.

DAY works are always more or less irritating to the surveyor, but when they are prepared in a slovenly fashion, as they not infrequently are, they become an abomination. Properly prepared, day-work sheets are even more valuable to the quantity surveyors when settling the final accounts of a contract than are well-kept diaries. Yet, alas, how seldom are they met with! A foreman should find no great difficulty in the preparation of his returns if he adopts a good system at the commencement of the job and keeps to it all through. The returns should be made weekly, up to Friday night for preference, and two copies should be made, one for the clerk of the works and the other for the surveyor; the time, etc., should be booked daily in a book kept for that purpose, and should be agreed to with the clerk of the works, so that the surveyor can have his copy without delay. The latter will find that he will avoid a great deal of trouble if he checks them at once instead of letting them accumulate until the end of the job. The returns should always be well displayed; numbering the various items will be found most useful; descriptions should be made full and lucid. How often are the sheets delivered with the same item differently described week after week! A good space between each item is very useful for notes in cases of disagreement between the clerk of works and foreman. The remarks column must not be neglected; the reason why the extra has occurred, when and by whom it was ordered, and any other note that may be useful to settle any disputes at the final settlement should be inserted. There should also be a remarks column for the use of the surveyor. It is very useful to note every variation upon the vouchers, whether it is to be adjusted as a day work or by measurement. Work which will be concealed, such as foundations, etc., should be measured and agreed, and the dimensions given upon the voucher; it is often very useful to give sketches or drawings of such work. Materials are too often returned in various ways that are very confusing; cement mortar is found charged one week, being transposed the next week into bushels of sand and cement. Mortar appears in every conceivable form of measure, such as yards, hods, pails, bushels, pecks, etc., all of which is very annoying to the surveyor.

The charging of foreman's time frequently leads to dispute, but it seems now to be generally accepted that it is included in the profit the surveyor allows. There may, however, be cases where it can be legitimately charged; for instance, when at the end of a contract the foreman has left the job and has to come back to attend to alterations, etc.

THE MEDIÆVAL SAWYER.

IN the Middle Ages where large building works were undertaken the sawyer was an indispensable workman. Much of the timber used in extensive building operations was cut up by the sawyers in pits dug by labourers in the woods where the trees were felled. In all accounts of the engagement and payment of sawyers the engagement of a single sawyer is never mentioned. A carpenter could use the smaller saws, but the sawyer was he by whom the great tree or log was sawn, and, naturally, for so large a tool two men would be needed. Such a fact explains why, where no great number of sawyers are engaged, two, a sawyer and his mate, are always employed and paid together.

In the building of the famous palace of Henry VIII. near Ewell hundreds of workmen were employed. It is clear that at one time during the progress of this building there was little or no sawing to be done, but the entry records the engagement of two, not one sawyer. (Rec. Off. MS. Exch. Acc. 477-12.)

Many particulars of the work carried out for Henry VIII. at Sherif Hoten Castle in 1537 are given in MS. Exch. Acc. 494-3. Here we find the record of the engagement of six sawyers at "vid euery man by the daye." The names of these six sawyers were:—

Robert Shire, John Shire, Davie Bell, Robert Hall, Hew Warter, Peter Warter.

The details show us that the top and lower sawyer were paid at the same rate—6d. a day each. Also we gather that it was, and very naturally so, a common circumstance for men of the same family to work together as sawyers; in the above-mentioned account we see that two out of the three couples were apparently brothers or relatives. In MS. 458-26 we have a record of payments to a "Robert Abbott and his sonne, sawyers."

In Exch. Acc. 465-20 we see some sort of enumeration of sawyers' work. We read of the "bvcking and slyttyng of dyverse kyndes of Tymber as well into bordes as also into Joystis, Rawfters, quavters, poncions" (puncheons).

In the twenty-fourth year of the reign of Henry VIII. various repairs were carried out on a property at Hatfield in Hertfordshire. Particulars of the work done and wages paid were entered in a book, which still survives, and is labelled in the Record Office as Exch. Acc. 464-23. In this book we see the not very common custom of paying the workmen partly in money and partly by payment for their board. The following entry shows us this system applied to the engagement of sawyers; it also places unusually clearly before us the fact of the engagement of sawyers in even numbers:—

"Item, to cristofer Sagher & his iii feloos [fellows] for V day[s] warke, hauyn XVId a day ..... vis. viiid. and for theyre bord theis dais .. iiis. iiiid."

That is to say, they were paid 4d. each per day in money, 2d. each being paid for their board, making in all the usual earnings of 6d. a day.

On June 15 we meet with an entry of wages paid to "Christofer Sagher and his feloo [fellow] for viii dais saghyng." The reference is of interest, for it tells us something of the derivation of surnames, and of the name Sawyer in particular. In our extract we have Christopher Sawyer for sawing, the surname being clearly derived from the man's occupation. In still earlier days, such an entry would have been Christopher, the sawyer, for sawing. The "the" disappears, and the calling becomes a surname, Christopher Sawyer.

Of all mediæval artisans the sawyer was more frequently paid by piecework than any other craftsman. He, like the rest, commonly worked by time, but the recorded instances of payments to him for piecework exceed in number all similar references to other artisans.

An example of payment by piecework to sawyers is to be found in MS. Exch. Acc. 544-12:—

"To the same two sawyers for sawying of VC of borde at xiid the hundrith .. vs."

Here we see that the sawyers were paid xiid. for the hundred—that is, for the hundred boards sawn. This amount, coinciding with that commonly paid to two sawyers for a day's work, shows us approximately the amount of sawing done by two sawyers in the mediæval day.

An English picture of two sawyers at work is to be found on page 99b of a XIVth-century manuscript in the British Museum (MS. 10, E. iv.). The sawyers are not depicted as working in a saw-pit, but are represented as sawing a beam, which is placed against a tall four-legged rest. The saw is grasped at each end by a sawyer, the handles of the saw not being set transversely, but placed vertically at the ends of the saw. The ment are dressed in the ordinary working-men's garments of the Middle Ages—namely, each in hose or long stockings covering closely the whole leg, and in a close-fitting body-garment, which falls from the waist in slightly gathered-up folds. The sleeves, as would be expected, fit closely to allow free action of the arms. Neither man has a head covering, but we may suppose the kerchief, wrapped round the head with a hanging end, to have been very commonly the fashion.

SUNDERLAND AND DISTRICT BUILDING TRADES' ASSOCIATION.

THE annual dinner of the Sunderland and District Building Trades' Association was held at the Grand Hotel, Sunderland, on the 5th inst. Mr. R. J. Hudson, the President, occupied the chair, and amongst others present were the Mayor of Sunderland (Councillor Brown), Mr. J. W. White (Sunderland), President of the National Federation; Councillor T. J. Armstrong (President of the Tyne and Blyth District Federation).

Mr. Morice Wright, in proposing "The National Federation of Building Trades' Employers," referred to the fact that Sunderland had given a good many notable men to the Federation, and this year in particular had provided a President in the person of Mr. White, who had also had the exceptional honour conferred upon him of being elected a member of the National Industrial Council as a representative of the building trades. In recognition of the distinction conferred upon Mr. White, he had pleasure in handing him, on behalf of the local association, an address of congratulation and also a silver salver and two silver vases.

Mr. White, after acknowledging the gifts, referred to recent legislation and its effect on the building trade. It was originally said that the Workmen's Compensation Act would represent something like 4s. or 5s. per cent., but now they found that it represented no less than 40s. per cent. Criticising the Insurance Bill, he said, so far as he could make out, the cost to the building trade employer would work out at about 1¾ per cent. That was in relation to sickness benefit. The Bill would come into operation too early, many of them having taken contracts for some time ahead without consideration of that charge of 1¾ per cent., which consequently would have to come out of the pockets of the employer.

CONTRACT OR MUNICIPAL LABOUR AT BLACKBURN?

THE proposal by the Waterworks Committee of the Blackburn Corporation to let the work of the proposed new water reservoir in the Wiltshire district by contract was challenged at a meeting of the Town Council by Mr. Higham, who contended that it ought to be done by labour employed direct by the Corporation. In contract work of this character, involving a great deal of excavation of land, that might be easy or might prove to be rock, it was "heads I win, tails you lose," for the contractor, who made a great profit if the job proved easy, and, if it proved difficult and unprofitable, "broke," and left the Corporation to finish it themselves. By employing direct labour they would also avoid the possibility of scamped work.

Mr. Hammond seconded.

Mr. Nuttall said that Mr. Bryan, their Consulting Engineer, strongly advised the Corporation to let the work to contractors of experience in that class of undertaking, and it was of no use calling in expert advice unless it was acted upon.

Mr. Hartley said that all work done by the Corporation was extremely expensive, and on the grounds of economy they should avail themselves of the ordinary competition by contractors.

Mr. Gregson and Mr. Slater thought there should be some understanding as to what the navvies were to receive, 6d. per hour being mentioned as a minimum.

Mr. Edmondson said he was a member of the Master Builders' Association, and they had agreed to meet the men on this subject, but the men were not prepared to meet the masters without some advocate with them. That was why the labourers did not receive 6d. per hour from the Masters' Association.

The recommendation of the Committee was approved, seven voting against it.

THE LATE MR. H. BROADHURST.

Mr. Henry Broadhurst, of Trent Cottage, Cromer, formerly a journeyman stonemason, and afterwards M.P. and Under-Secretary of State, Home Office, in 1886, has left estate of the gross value of 6,962*l.* 6s. 2d., with net personalty 5,481*l.* 9s. 3d.

GENERAL BUILDING NEWS.

NEW CHURCH, SOUTHSEA.

This new building in Victoria-road is being erected at a cost of about 4,166*l.*, from the designs of Mr. C. W. Bevis, F.R.I.B.A. The contractor for the work is Mr. James Crockerell, builder, of Portsmouth.

SOUTHGATE, N., BAPTIST CHURCH AND SCHOOLS.

A new church and schools are to be erected at the corner of Bourne-hill-road and New-road, Southgate, N., from the designs of Messrs. George Baines & Son, architects, 5, Clement's Inn, Strand, London, W.C. The buildings are designed in a late period of Gothic freely treated, and embrace a church accommodating about 500 persons and commodious school premises. Externally the buildings will be faced with red brick.

WORTHING ART SCHOOL.

This new school of art has been erected from the plans prepared by Mr. Haydn P. Roberts, architect, at an estimated cost of 2,100*l.* The contractor was Mr. G. Potter, of Horsham.

PALACE THEATRE, ROCHDALE.

Messrs. Butterworth & Duncan, of Rochdale, are the architects for this new theatre, which provides accommodation for 1,200 people. The contractors for the work were:—Joinery—Mr. G. F. Endersby; slating—Mr. Robert Woolfenden; plumbing—Messrs. Schofield & Hopkinson; painting and decorating—Messrs. Beal & Clegg; heating—Mr. Isaac Butterworth (all of Rochdale); ventilation—Messrs. Rigby & Mellor, Bury; electric lighting—Rochdale Electric Company, Rochdale; constructional steel work—Messrs. Redpath, Brown, & Co., Manchester; fireproof curtain—Messrs. Stuart & Co., Manchester.

CATTLE MARKET, ISLINGTON.

The new bullock slaughterhouses at the Islington Cattle Market were recently opened by Mr. G. J. Berridge, the Chairman of the Cattle Market Committee of the City Corporation. This new extension marks the completion of a scheme of public slaughterhouses provided by the Corporation at the market, not only in substitution of the private slaughterhouses that formerly existed there, but to provide public accommodation for expert slaughtering under sanitary conditions, and to permit of the examination of the carcase and viscera of animals at the time of slaughter. The buildings now opened have been erected from the designs and under the direction of Mr. Sydney Perks, F.R.I.B.A., F.S.A., the City Surveyor. The buildings are lighted by gas and electricity, the current being obtained from the Islington Borough Council. To ensure cleanliness the walls are lined with glazed bricks, and the buildings are paved with blue pennant stone. The contractors for the slaughterhouses now opened were Messrs. William Johnson & Co., Ltd., of Wandsworth-common, S.W.

PROPOSED NEW ELECTRIC THEATRE, HITCHIN.

Plans for an electric theatre proposed for erection on the west side of the Market-place have been prepared by Mr. E. S. Barr, architect, St. John-street, W.C.

TRADE NEWS.

We are asked to mention that the sponsors of "Ceresit"—a patent waterproofing material for brick, stone, and concrete structures, which was introduced into this country less than two years ago—are the British Ceresit Waterproofing Company, Ltd., of 311, Princes Mansions, Victoria-street, S.W. The material is being used by H.M. Office of Works, the War Office, railway companies, and a large number of public bodies; at the Wortley Golf Club House, near Sheffield, which is now under course of construction, Ceresit is being used for damp-proofing purposes. The material is not a "paint." It is used only in combination with sand and cement, and a rendering of these materials, from ¾ in. to 1 in. in depth will, it is claimed, keep out all wet and moisture even under a pressure of 50 lb. to the square inch.

Messrs. Patman & Fotheringham, Ltd., of 100 and 102, Theobald's-road, London, W.C., have secured the contract for a large factory and warehouses at Camden Town for Messrs. Goodall & Son, Ltd., playing-card makers.

Messrs. Robert Boyle & Son, ventilating engineers, of Holborn Viaduct, have sent us a diagram, design No. 175a, of their latest patent "air-pump" ventilator, which, though slightly less ornamental than their Standard design No. 175, is lower in price, and is claimed to be equally effective.

The new picture theatre, Featherstone, is being ventilated by means of Shorland's patent exhaust roof ventilators supplied by Messrs. E. H. Shorland & Brother, Ltd., of Failsworth, Manchester.

An Insect-Destroying Apparatus.

We recently called attention to a useful insect-destroying appliance which can be obtained from Messrs. R. Sumner & Co., Ltd., of 50A, Lord-street, Liverpool, but it may not have been understood that the firm supply the insecticide as well as the spraying apparatus. The instrument is practically a compressed-air sprayer. The liquid is placed in a copper receptacle, and a few strokes of a little piston compresses the air. The spray can then be turned on and sent in any direction. If insects are known to be behind panelling, or in any cracks from which they cannot be dislodged, the instrument can easily be pressed into service. As soon as the liquid touches the insect it drops dead, whilst any eggs upon which the liquid falls are destroyed, thus preventing any reappearance of the pests. The liquid does no harm to woodwork or upholstery.

A DECEASED BUILDER'S ESTATE.

The estate of the late Mr. Albert James Monk, of Church-street, Lower Edmonton, and of the Joinery Works, Hertford-road, Lower Edmonton, builder and contractor, is sworn as of the gross value of 49,189*l.*, with net personalty 20,417*l.*

COMBINATION AMONG BUILDERS.

We have received the following letter from Mr. T. Gilbert, of Accrington:—

"SIR,—Do you think it possible or advisable for builders to associate locally and combine with a view to eliminate some of the cut-throat competition which goes on to-day, and to keep prices up? Has anything been done in this direction, and with what success?

I should be glad if you or your readers would suggest what lines to work on for the attainment of the above objects."

APPLICATIONS UNDER LONDON BUILDING ACTS, 1894 to 1909.

AT Tuesday's meeting of the London County Council, the following applications under the London Building Acts were dealt with, the names of the applicants being given in parentheses:—

Lines of Frontage and Projections.

Hackney, North.—Erection of buildings on the western side of Leweston-place, Stamford-hill, between No. 4, Leweston-place and the corner building next to Portland-avenue (Messrs. Edmondsons, Ltd.).—Consent.

Holborn.—Erection of a building with a forecourt boundary upon the site of Nos. 245 to 260, High Holborn (Mr. H. P. Monckton for the Pearl Life Assurance Company, Ltd.).—Consent.

Islington, South.—Illuminated sign at Collins's Music Hall, on the northern side of Islington-green (Mr. C. G. Miller for the Proprietors of Collins's Music Hall).—Consent.

Kensington, South.—Projecting iron balcony at No. 18, Cresswell-place, Kensington (Mr. W. Withers for Mr. T. M. Webb).—Consent.

Lambeth, North.—Additions and two flights of steps in front of the Lambeth Wesleyan Church, on the southern side of Lambeth-road, Lambeth (Messrs. Gordon & Gunton).—Consent.

Lewisham.—Buildings on the southern side of Perry-vale, Lewisham (Messrs. Norfolk & Prior for Messrs. Gosling Brothers).—Consent.

Southwark, West.—Erection of a pediment over the projecting shop in front of No. 59, London-road, Southwark (Messrs. Stanley Jones & Co., Ltd).—Consent.

Strand.—Projecting clock in front of No. 8, New Coventry-street, Piccadilly (Greenwich Time, Ltd., for the Automobile Association and Motor Union).—Consent.

Wandsworth.—Erection of houses with projecting bay windows and porches on the eastern side of Strathbrook-road, Wandsworth (Mr. S. Boothman).—Consent.

Width of Way.

Whitechapel.—Erection of brick piers and rolling shutters at the brewery premises of Messrs. Truman, Hanbury, Buxton, & Co., Ltd., on the western side of Brick-lane, Spitalfields (Mr. F. H. Jeacock for Messrs. Truman, Hanbury, Buxton, & Co., Ltd.).—Consent.

Woolwich.—Erection of a building at the rear of premises on the western side of Wood-street, Woolwich, and to abut upon a way leading out of Maryon-grove (Mr. J. R. Vining).—Consent.

Width of Way and Projection.

City of London.—Projecting oriel window at the premises of the London Salvage Corps, Well-court, City (Mr. P. Waterhouse for the London Salvage Corps).—Consent.

Line of Frontage and Space at Rear.

Bethnal Green, North-East.—Presbytery building on the eastern side of Victoria Park-square, Bethnal Green, adjoining the church of Our Lady of the Assumption (Mr. E. Goldie).—Consent.

Width of Way and Construction.

Poplar.—Erection of a gantry with a roof over at Providence Iron Works, West Ferry-road, and Devonshire-terrace, Millwall (Messrs. S. Cutler & Sons).—Consent.

Strand.†—Iron and glass shelter on the Chandos-street frontage of the Royal Westminster Ophthalmic Hospital, King William-street and Chandos-street, Westminster (Mr. J. Johnson for the Committee of the hospital).—Consent.

Lines of Frontage and Construction.

City of London.—Iron and glass shelter at the entrance to Cripplegate Institute, Golden-lane, City (Mr. F. S. Hammond for the Governors of the Cripplegate Foundation).—Consent.

Hammersmith.—Addition of a temporary character to the Church of the Holy Innocents on the eastern side of Paddenswick-road, Hammersmith (Messrs. Humphreys, Ltd., for the Vicar and Churchwardens).—Consent.

Wandsworth.—Temporary wood and brick gantry on the eastern side of Garratt-lane, Wandsworth (Mr. J. E. Yerbury).—Consent.

Space at Rear.

Hampstead.—Addition at the rear of No. 5, Heath-drive, Hampstead (Mr. W. J. Ancell for Mr. S. Joseph).—Consent.

Formation of Streets.

Hampstead.—Formation or laying out of a new street for foot traffic only to form an arcade on the eastern side of Finchley-road, Hampstead (Mr. L. Sinclair).—Consent.

Lewisham.—Roadways of proposed streets on the Forster Estate, to lead out of the eastern side of Bromley-road, Catford (Mr. J. Watt).—Consent.

Paddington.—Wooden fences or barriers across Biddulph-road and Ashworth-road, on the Paddington Estate, Sutherland-avenue, Paddington (Mr. H. T. Steward).—Consent.

Wandsworth.—Barriers across Ellerton-road, Wandsworth (Messrs. Holloway Brothers).—Consent.

Alteration of Buildings.

St. George, Hanover-square.—Additions at the rear of No. 78, New Bond-street, St. George, Hanover-square (Messrs. Barman & Rowe for Messrs. White, Druce, & Brown).—Consent.

Deviation from Certified Plan and Projection.

St. George, Hanover-square.—Building upon a site abutting upon Curzon-street and Clarges-street, St. George, Hanover-square (Mr. P. Hoffmann).—Consent.

Cubical Extent.

Marylebone, West.—Additional cubical extent at the premises of Messrs. Bourne & Hollingsworth, on the western side of Berners-street, St. Marylebone (Mr. J. Slater).—Consent.

Whitechapel.—Conversion of Fashion-street-arcade, Whitechapel, into a building of the warehouse class, exceeding 250,000 cubic feet in extent (Messrs. Grant & Dolley).—Consent.

Uniting of Buildings.

Finsbury, East.—Uniting of No. 41, Old-street, Finsbury, with Nos. 43-45, Old-street (Mr. P. B. Tubbs).—Consent.

The recommendation marked † is contrary to the views of the Metropolitan Borough Council concerned.

PROJECTED NEW BUILDINGS IN THE PROVINCES.*

ABERTILLERY.—Picture palace; Messrs. W. Williams & Sons, builders, New Tredegar.

Annathill.—Extensions to public school for the New Monkland School Board.

Bethesda.—Market hall, etc.; Manager, Market Hall Company, Ltd., Bethesda.

Birkenhead.—Extension to school (8,115*l.*); Messrs. W. Tomkinson & Sons, builders, 21, Dansie-road, Liverpool.

Blackpool.—Additions to premises for the Blackpool Industrial Co-operative Society.

Bonnybridge.—School for the Falkirk School Board.

Brislington.—School; Mr. C. H. Bothamley, Secretary, Education Committee, Somersetshire County Council, Weston-super-Mare.

Bromsgrove.—Drill hall; Mr. Percy Smith, architect, Foregate, Worcester.

Bucknall.—Extensions to hospital (3,250*l.*); Messrs. Bennett Brothers, builders, Newcastle-street, Burslem.

* See also our list of Competitions, Contracts, etc., on another page.

Burley-in-Wharfedale.—School (3,600*l.*); Mr. W. V. Dixon, Secretary, Education Committee, West Riding of Yorks County Council, Wakefield.

Burslem.—Lloyd's bank; Mr. W. Slater, architect, Burslem; Messrs. Lowe Brothers, builders, Curzon-street, Burton-on-Trent.

Catchgate.—Sixty houses; Mr. T. J. Trowsdale, Surveyor, Annfield Plain Urban District Council.

Cefn Cribbwr. — Enlarging schools; Mr. D. P. Jones, architect, Charles-street, Cardiff.

Chester-le-Street.—Fifty houses; Mr. William Ridley, Surveyor, Chester-le-Street Urban District Council.

Cirencester.—One hundred houses; Mr. E. J. Price, Strattan, Cirencester.

Clwtybont (Carnarvon).—Thirty houses; Mr. J. G. Griffith, Surveyor, Gwyrfai Rural District Council.

Darwen.—Warehouse, Borough-road, for the Darwen Industrial Co-Operative Society, Ltd.

Derby.—Wesleyan Church; Messrs. Wills & Sons, architects, St. Peter's-churchyard, Derby. Shops, East-street; Messrs. Walker & Slater, builders, Uttoxeter Old-road, Derby.

Droitwich.—Drill hall; Mr. Percy Smith, architect, Foregate, Worcester.

Dunfermline.—Institute, Netherton Broadstreet, for the District Committee of the Dunfermline Carnegie Trust.

Dunstable.—Picture theatre, High-street; Mr. F. Marchant, Dunstable.

Earl Shilton.—Alteration to factory, Hillstreet, for Messrs. Ney Brothers.

Eccleshall Bierlow.—Enlargement of school, Western-road (450 extra places); Mr. G. S. Baxter, Secretary, Education Committee, Sheffield Town Council.

Elland.—Extensions to Rose Mount Works for Messrs. R. Dempster & Sons, Ltd.

Ferry Fryston.—School (2,600*l.*); Mr. W. V. Dixon, Secretary, Education Committee, West Riding of Yorks County Council, Wakefield.

Folkestone.—The following plans have been passed:—Alterations, Nos. 19 and 21, Rendezvous-street, for Messrs. Lewis, Hyland, & Linom; Mr. H. Ward, architect. Conversion of Harveian Institute, The Bayle, into printing works, for Messrs. F. J. Parsons, Ltd.; Mr. H. M. Jeffery, architect.

Glasgow.—Buildings, Broad-street, Mile End, for Messrs. Stewart & Young, confectioners. Picture theatre, Smith-street, Govanhill, for Mr. Arthur P. Vivian, manager, St. George's Picture Theatre, Paisley.

Grays (Essex).—School (4,760*l.*); Messrs. Brown Brothers, builders, Grays.

Grimsby.—Factory (2,500*l.*) for Messrs. Osmond & Son, Ltd.

Hampton. — Proposed drill hall, Wensley Dale-road; Major S. H. Godman, D.S.O., Secretary, Middlesex Territorial Force Association.

Hanley.—Stores for Messrs. Clews; Mr. C. Cowlishaw, architect, Stafford-street, Hanley.

Horsell.—Development of part of Horsell Building Estate for the Workington Co-Operative Society.

Hove.—The following plans have been passed:—Four houses, Avondale-road; Mr. W. H. Overton, on behalf of Mr. J. C. E. Glover. Garage, Fonthill-road; Mr. T. Garrett on behalf of Mr. A. J. Clark. Plans have been lodged for eight houses, Bolsover-road, by Mr. S. James on behalf of Mr. O. F. Mills.

Ingatestone (Essex).—Post-office; Mr. R. H. Browne, architect, High-street, Brentwood.

Liverpool.—Additions to collegiate school (800*l.*); Mr. J. Legge, Secretary, Education Committee, Liverpool Town Council.

Malvern.—Drill hall; Mr. Percy Smith, architect, Foregate, Worcester.

Manchester.—Baths and washhouses, St. John's Ward (5,000*l.*); Mr. Henry Price, Architect, Manchester Town Council.

Newbury.—Twelve houses; Mr. S. J. L. Vincent, Surveyor, Newbury Town Council.

Ormskirk.—Generating station off Park-road for the Ormskirk Electric Supply Company, Ltd.

Plymouth.—The following plans have been passed:—Nine houses, Peverell Park-road; Mr. R. Huggins. Twenty-one houses, Jephson-road, Little Saltram Estate; Messrs. Prance & Prance. Extension to St. Boniface School for the Rev. Bishop of Plymouth. Offices and premises, Quay-road; Messrs. Chant & Paddon. Plans have been lodged for five houses, Norton-avenue, Lipstone Estate, for Mr. J. H. Endean; four houses, Glenparke-avenue, for Messrs. Wood & Easterbrook; and for six houses, Hele's Charity Almshouses, Prince Rock, for Mr. W. Adams, Clerk, Plymouth Board of Guardians.

Ramsey (Isle of).—Forty houses; Mr. J. Falconer, architect, Fort William.

Radstock.—Twenty-eight houses; Mr. G. H. Gibson, Surveyor, Radstock Urban District Council.

Ramsgate.—School (5,000*l.*); Mr. T. G. Taylor, Surveyor, Council Offices, Ramsgate.

Rotherham.—Chapel; Trustees, Northfield Wesleyan Mission. Plans have been passed for eleven houses, Wortley-road, for Mr. William Charles; and for the erection of engineering works, Rawmarsh-road, for Mr. Sam Bowskill.

St. Albans.—Picture theatre, Chequer-street; Mr. E. Dunham, St. Albans.

Sheffield.—Central fire-station (3,000*l.*); Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield. The following plans have been passed:—Three houses, etc., Rutland-road, for Mr. G. Pallett; alterations to premises, High-street and East Parade, for the Union of London and Smith's Bank, Ltd.; nine houses, Warminster and Mount View roads, for Mr. J. Sanderson; four houses, Newman-road, and seven houses, Jenkin-lane, for Mr. George E. Pye; alterations to premises, Carlisle-street East, for Messrs. Kayser, Ellison, & Co., Ltd.; nine houses, Ferguson-street and Otter-street, for Mr. G. Cooper; eight houses, Archer-road, for Mr. F. Wolstenholme; additions to premises, Royds Mills-street, for the Sheffield Smelting Company, Ltd.; eighteen houses, Bromwich and Linburn roads, for Mr. H. Holland; thirty-four houses, off Catley-road, for Mr. J. Fieldsend; addition to premises, Meadow Hall-road, for the Shrewsbury Hospital Trustees; thirty-six houses, Vickers-road, for Mr. A. Waddington; works and offices, Greenland and Tinsley Park roads, for Messrs. Seebohm & Dieckstahl; workshop and offices, Woodseats-road, for the Strong Twist Drill Company; additions and alterations to No. 103, Industry-street, for the Rock of Hope Friendly Society; eleven houses, Glenalmond-road and Dobbin-hill, for Mr. A. J. Belton; alterations and additions, Rifle Tavern, Bower-street, for Mr. R. J. Bentley's Trustees.

Staines.—Boys' home (2,170*l.*); Messrs. E. Hawkins, Ltd., builders, Ashford.

Stockport. — Additions to Stepping-hill Hospital (30,000*l.*); Mr. C. F. Johnson, Clerk, Board of Guardians, Stockport.

Stretford.—Plans have been passed for the erection of printing works, Second-avenue, for the Drake-street Printing Company; also for a store, Trafford Park, for Messrs. British Westinghouse Electric and Manufacturing Company, Ltd.

Swinton.—Enlargement of schools; Vicar, St. Stephen's Church, Swinton.

Torquay.—School (6,230*l.*), Homelands; Mr. H. C. Jackman, builder, care of Mr. F. S. Hex, Town Clerk, Torquay Town Council. The following plans have been passed:—Alterations to bakery for the Torquay Co-operative Society; ten houses, Plainmoor, for Mr. J. Easterbrook; alterations, Old Market Inn, for Messrs. Norman & Pring; three houses, Thurlow-road, for Mr. J. Taylor.

Wallsend.—Proposed offices, Carville Station, for the North Eastern Railway Company.

Walsall.—The following plans have been passed: — Alterations and additions, 23, Lysways-street, for Messrs. N. E. Best & Son; alterations to shops, Mill-lane, Butts, for Mr. J. Homer; additions to factory, Lower Rushall-street, for Messrs. T. Gameson & Son. Plans have been lodged for a clothing factory, off Navigation-street, for Messrs. Moore & Co.

Waterford.—Additions to post-office (8,000*l.*); Mr. P. Costen, builder, Waterford.

Wickford.—School, London-road; Mr. J. H. Nicholas, Secretary, Education Committee, Essex County Council, Chelmsford.

Wigan.—Plans have been passed for eighteen houses, Billinge-road and Clayton-street, Pemberton, for Messrs. Clough & Gaskell.

Wolstanton.—School (5,590*l.*); Mr. W. Slater, architect, Burslem; Mr. S. Heath, builder, Basford.

[A mistake was made in our list of "Projected New Buildings in the Provinces" in our issue of December 1, page 653, where the names of Messrs. Bridgewater & Porter were given as the architects for a new picture palace in Coventry-road, Birmingham. We learn that this work is under the supervision of Mr. H. G. Bradley, architect, Temple-row West, Birmingham.]

WESTMINSTER CITY COUNCIL.

At the fortnightly sitting of the Westminster City Council on December 7 the following matters were dealt with:—

Wood-paving Blocks.—It was decided to accept the offer of Messrs. W. W. Howard Brothers & Co. to purchase of them 68,854 creosoted yellow deal paving blocks for 412*l.* 16*s.* 6*d.*

Surveyors' Institution.—A plan was submitted by Mr. Paul Waterhouse on behalf of the Surveyors' Institution for the reconstruction of the sewage of the building, and it was decided to approve of the plan subject to certain conditions.

Great Hall of the Palace of Whitehall.—A letter was received from the London Topographical Society, forwarding plan showing the site of the Great Hall of the Palace of Whitehall (in Horse Guards-avenue), and suggesting that the site might be marked by the use of a distinctive, coloured wood-block in the roadway or by stone sets let into the existing pavement. They state the London County Council are considering a suggestion made by the Society that a commemorative tablet be put in the dwarf wall of the forecourt of No. 1, Horse Guards-avenue, adjacent to the site. It was agreed to allow the Society to mark the site out as suggested at their own expense.

Argyll-place Improvement.—It was decided to acquire the necessary property for the widening of Argyll-place to Great Marlborough-street on the south side, between Kingly-street and Carnaby-street.

FOREIGN AND COLONIAL.

Australian Federal Capital.

The *Argus* (Melbourne) of October 27 publishes the text of the Australian Premier's Budget speech, from which it appears that provision is made for the expenditure in 1911-12 of 4,306,365*l.* for new works, buildings, etc., including Federal Capital at Canberra, 100,000*l.*; wireless telegraph stations, Pennant Hills and Fremantle, 16,800*l.*; buildings, etc., in northern territory, 26,900*l.* An expenditure of 100,000*l.* is proposed towards the establishment of the Federal capital city. It is proposed to acquire the privately-owned lands within a radius of seven miles of the city site and other properties, upon which works for various purposes will be constructed, such as pipe lines, reservoirs, bridges, weirs, etc. Provided these lands are acquired immediately, a sum of 50,000*l.* could be profitably expended on necessary works during the year. These works embrace the construction of a weir on the Cotton River, a bridge over the Murrumbidgee River, laying of water pipes, construction of a reservoir, a temporary railway from Queanbeyan to the centre of distribution of material, power plant, brickmaking plant, supply of timber, road-making, etc. The Budget also provides for new postal works and buildings, 1,531,214*l.*; new defence works, 2,510,960*l.*; and special defence material, 468,700*l.*

Building Trade, New Zealand.

The building trade is exceptionally active, and is likely to continue so for some time. Those engaged in the engineering industry, which is in a very bad state, are still agitating for further tariff protection to the extent of 33⅓ per cent.

Bridge Work and Buildings, South Africa.

The Natal *Official Gazette* of November 9 notifies that the following tenders have been accepted for the execution of works in that province:—1. Mr. R. McColl, P.O. Box 618, Pretoria, for masonry work for the Bloed River bridge, Utrecht, 2,554*l.*; 2. Messrs. Peattie & Stannard, P.O. Box 35, Pietermaritzburg, for the construction of a Mammal Hall at the Natal Museum, 9,774*l.*; 3. Messrs. Still Brothers, 3, Wallace-road, Durban, for a bridge over Sand Spruit, Utrecht, 1,843*l.*

The South African *Mining Journal* (Johannesburg) of November 4 publishes the following particulars of the estimated values of buildings, the plans of which have been approved by the Municipal Councils of the towns in question during the month of September, 1911:—Johannesburg, 239,364*l.*; Boksburg, 2,265*l.*; Germiston, 8,670*l.*; Roodepoort, 3,250*l.*; Krugersdorp, 12,025*l.*; Pretoria, 13,507*l.*; and Springs, 1,200*l.*; making a total value of 280,281*l.* The value of the tenders accepted by the Government for public buildings during the month, and not included in the above amount, was 24,254*l.*

Building in Valparaiso.

The following information is from the Bulletin of the Pan-American Union for October:—

The municipality of Viña del Mar, a suburb of Valparaiso, has requested the Federal Government to authorise the negotiation of a loan of 2,000,000 pesos (about 87,500*l.*) for municipal improvements, the most important of which are as follows:—Slaughter-house, 150,000 pesos; garbage-incinerating plant, 100,000 pesos; municipal theatre, 275,000 pesos; public baths, 75,000 pesos; police quarters, 70,000 pesos; Villanelo bridge (part), 30,000 pesos; street pavements, 1,000,000 pesos. Pesos (paper) = about 10½d.

LEGAL COLUMN.

In reference to the article on "Repairing Covenants in Leases," which appeared in our last issue, page 683, the names in the case were given as Zurcott *v.* Wakeley, whereas it should have read: Lurcott *v.* Wakeley.

Trade Union Law.

The case of Baker *v.* Ingall (noted the *Builder*, March 31 last) has been carried to the Court of Appeal, and it affords one more example of the difficulties which arise in connexion with the law relating to trade unions. The defendant was a member of a friendly society, registered as a trade union, the Friendly Society of Ironfounders of England, Ireland, and Wales, and he was being sued by the plaintiff society for the sum of 100*l.*, which had been paid to him as benefit whilst suffering from an accident. One of the rules of the society was that all members receiving accident benefit must sign an agreement that in the event of their returning to the trade they will refund the amount so received. The defendant was originally a moulder earning 2*l.* 1*s.* a week. About four years after the accident he was able to return to work as a coremaker at 1*l.* 5*s.*, and the County Court Judge held as a fact this was a return to the trade of an ironfounder. To the claim by the union for the return of the sums given to the defendant as benefit the member raised several technical points under the Trade Union Act, contending that this was a claim over which the Courts could exercise no jurisdiction.

The first question which has to be decided in such cases is whether the society is one whose objects are illegal at common law. If the society would have been illegal at common law, because its objects would be a restraint upon trade, then it remains to be seen whether, under the special provisions of the Trade Union Acts, recourse is open to the Courts or not. We explained this fully in our article on the second Osborne case (the *Builder*, February 24 last).

In the case under consideration the County Court Judge had held this society by its rules to be an unlawful association at common law, as being in restraint of trade, and that under sect. 4 of the Trade Union Act, 1871, the agreement could not be enforced, because that section provides that "Nothing in this Act shall enable any Court to entertain any legal proceeding instituted with the object of enforcing . . . any agreement for the payment of any penalty . . . any agreement for the application of the funds of a trade union," and he held this to be a proceeding to enforce a penalty and relating to the application of trade union funds.

The Divisional Court had not to consider whether this society was or was not an unlawful association, because it held that the Trade Union Act did not apply, since the proceedings in question were not taken to enforce a penalty, and the agreement for the repayment of this money was not an agreement for the application of the funds, but a separate and distinct agreement.

The Court of Appeal have reversed this finding. On the question of the legality of the society the Court felt itself bound by a decision, Russell *v.* Amalgamated Society of Carpenters (see the *Builder*, January 15, 1910), to hold this society unlawful in its objects at common law, and that under the Trade Union Act this agreement was not distinct and separable, but was an agreement within sect. 4. Lord Justice Kennedy dissented from this latter finding.

It is open to the plaintiffs, the trade union, to appeal to the House of Lords on the point decided by the Court of Appeal in Russell's case, as to what renders a trade union illegal in its objects, but that is a question which has involved much litigation.

When the legislature legalised trade unions by the Trade Union Act, 1871, it seems to have been deemed expedient not to allow these hitherto "illegal" societies to have free access to the Courts. The reason for this limitation, if any ever existed, appears to have passed away, and expediency seems now to point entirely in the direction of throwing the Courts open to trade unions and their members. In the present case, for instance, why should the trade union be unable to enforce a reasonable agreement against one of its members? Unfortunately, far from adopting the view that the Courts should be open to all, the legislature by the Trade Disputes Act has made a further move in the opposite direction, even excluding the general public from the Courts where wrongful acts have been committed by trade unions or their members in contemplation or furtherance of trade disputes.

Gas Mains: "Building" or "Tunnel"?

In the recent case of Schroeder *v.* Worthing Gas Light and Coke Company some points of interest were decided. The plaintiff was the owner of land at both sides of a highway, and in September, 1909, he connected his property by constructing a tunnel under the roadway. This tunnel was constructed of bricks strengthened with iron girders. The roof was 15 in. below the surface of the road, and was constructed of transverse and longitudinal girders imbedded in cement 18 in. thick. The defendants were a gas company, with statutory powers contained in a private Act passed in 1907, which incorporated the Gas Works Clauses Act, 1847.

In December, 1910, the defendants laid two gas mains 10 in. below the surface of the road, and in doing so carried away part of the cement concrete and one of the mains rested on the girders. The plaintiff contended that these mains were laid in and through the roof of his tunnel, and on his land not dedicated to the public use. The defendants contended that they had acted within their statutory powers in excavating the roadway and laying the pipes. Sect. 6 of the Gas Works Clauses Act, 1847, empowers the undertakers to open and break up the soil of streets, and "any sewers, drains, or tunnels" under such streets; but sect. 7 provides that the undertakers shall not "lay down or place any pipe . . . into, through, or against any building, or in any land not dedicated to public use, without the consent of the owners or occupiers."

The Court held, on the authority of the case, Thompson *v.* Sunderland Gas Company (1877), that this structure was a "building." The Judge considered it was not a "tunnel," but that, even if it were, the defendants had acted *ultra vires*, since by sect. 10 they were bound to reinstate it—*i.e.*, to restore it to the condition in which it was before; and this they had neglected to do. The Court left undecided the point as to whether or not the pipes were laid in soil dedicated to the public, as on the above findings the plaintiff was entitled to a mandatory injunction.

Building Estate: Implied Grant of Right-of-Way.

A case, Rudd *v.* Bowles, is reported in the *Weekly Notes*, which is of interest to those accepting building leases.

On March 25, 1902, the defendant, Bowles, granted leases of four plots of land to one Gluck, who had erected houses upon them under a building agreement. Afterwards, by agreement, the dates of the leases were altered to some dates in July, 1904.

There was a plan on each lease which showed twelve plots with houses, but those demised to Gluck alone were coloured. The land and houses fronted on Halons-road, Eltham, at right angles to which ran Enslin-road. The plans showed a strip of land, coloured brown, 4 ft. wide, running at the back of all the houses except the last two near Enslin-road; but there were no words indicating that this was intended as a right-of-way. At the time the dates on the leases were altered the plots, with the approval of the defendant's architect, or without objection raised, had been fenced in at the back with gates or openings giving on to the brown strip. This strip had been included in the building agreement, but with the consent of Gluck excluded from the leases. It had never been fenced in on the other side, but formed part of the defendant's land.

In September, 1910, the defendant commenced building on the brown strip, and the plaintiff, a mortgagee of Gluck, in possession, applied to the Court for a declaration that he was entitled to a right-of-way over the brown strip and for an injunction.

The Court held that the alteration in the dates of the leases did not invalidate them, and that the defendant was estopped from showing that the date inserted by himself was not the date from which the demise operated, so as to prevent anyone claiming under the lease from relying on circumstances then existing, and since at either date, it was fairly obvious to anyone inspecting the houses with the plan that the back gardens were intended to open on to the 4-ft. strip, and access from the back was necessary for the reasonable enjoyment of the houses as constructed, therefore an implied right-of-way was granted by the leases, and a declaration was granted and an injunction.

Waste Land by Highways.

Very difficult questions arise from time to time in connexion with waste lands by the sides of highways. In a recent case, East *v.* The Berkshire County Council, the lord of the manor of Horley was suing the County Council for trespass upon a strip of land by the highway some 350 ft. long and varying in width from 32 ft. to 12 ft. In support of his claim he relied upon certain acts of ownership exercised by him. He had taken the road trimmings for his own use or had sold them, and had been paid a nominal rent for allowing road scrapings to be deposited upon the piece of land. Some telegraph poles had been placed on the land, and the United Telephone Company and the Postmaster-General had made a small payment in respect of them. Lastly, it was alleged some cottages had been built by one Cripps facing the piece of waste, and the plaintiff had exchanged a piece of the waste land for a piece of Cripps' land in order to give them a straight frontage.

The defendant Council, however, asserted that even if the soil was vested in the plaintiff, yet for forty years there had been continuous user by the public of the surface, and the Court held that the evidence of dedication had not been rebutted by the plaintiff, and the presumption was assisted by the fact that the cottages only abutted on the piece of waste land, so if it were not part of the highway, the cottagers would have had no means of access to the road. Owing to the action of the defendants in making certain admissions, which the Court held had misled the plaintiff, and in refusing to produce certain minute books and other documents, or giving any reason for their non-production, the action was dismissed without costs.

A somewhat similar case, Coats *v.* Herefordshire County Council, will be found noted the *Builder*, June 5, 1909. In that case the Court held that the land being capable of dedication, and there being persons capable of dedicating it, exercising acts of ownership over other portions of it, who had permitted the use of the portion in question by the public for over forty years, the land must be deemed to have been duly dedicated.

LAW REPORTS.

London Building Acts: L.C.C. *v.* Clark.

THE appeal in the Court of Appeal, composed of Lords Justices Vaughan Williams, Buckley, and Kennedy, on Monday, December 11, mention was made of the case in the King's Bench Division (interlocutory list of appeals) of the London County Council *v.* Clark.

This was the appeal of the respondent, Mrs. Clark—in the matter of the London Building Act, 1894, and of the London Building Acts (Amendment) Act, 1905, sects. 7 (2) and 22—as the owner of the Berners Hotel, Berners-street, London, W., from an order of the Divisional Court composed of Justices Hamilton and Bankes upon her appeal against the refusal of the London County Council to issue a certificate pursuant to sect. 7 of the Act of 1905. The matter came before the Divisional Court on a special case stated by a Tribunal of Appeal.

Mr. C. A. Russell, K.C., stated, on their Lordships taking their seats, that he was surprised to see the appeal in the list for that day, and he was afraid the parties were not ready for the hearing. It was a case in which the appellant had given notice of appeal in order to protect herself, but communications were now going on between her and the London County Council which both parties thought, if time was given to them, might lead to a settlement. If their Lordships would allow the appeal to stand out until the next sittings he would be glad. The appeal raised important questions under the Building Act, and there were a great many details to be considered.

Counsel, on behalf of the London County Council, said the London County Council were agreeable to this course, and thereupon the Court gave consent to the application.

COURT OF APPEAL.

(Before Lords Justices VAUGHAN WILLIAMS, BUCKLEY, and KENNEDY.)

Action by Contractors on District Surveyor's Certificate: Thomas Free & Sons, Ltd. *v.* Urban District Council of Sutton.

THIS case was heard on December 12, 13, and 14 upon the application of the plaintiffs for judgment or new trial in the action which was tried by Mr. Justice Lawrance and a special jury in the King's Bench Division. There was also a cross appeal by the defendants.

Mr. Ernest Pollock, K.C., and Mr. McCarthy appeared for the appellants, and Mr. Shearman, K.C., and Mr. Morton Smith for the respondents.

Mr. Pollock said that the action was brought by the plaintiffs, a firm of contractors carrying on business at Maidenhead, to recover 270*l.*, the amount of the certificate given by the Surveyor to the defendant Council for work done by the plaintiffs in making-up and

laying-out a road called Gronnell-road, Sutton. At the trial the learned Judge put two questions to the jury; the first was, whether the 270*l.* was due to the plaintiffs on May 18 under the contract between the plaintiffs and the defendants; and, secondly, did the plaintiffs or the Surveyor know that sum was not due? The jury answered both those question in the plaintiffs' favour. The learned Judge, however, upon the construction of the contract under which the certificate was given, and the facts, entered judgment for the defendants, in spite of the verdict, and from that judgment the plaintiffs now appealed.

The amount of the contract for making-up the road in question was 967*l.* odd, and the amount sued for was for an instalment due under the Surveyor's certificate. Several points were raised by the defendants in the defence, but, broadly speaking, the defendants made a charge which really amounted to a charge of fraud and collusion between the plaintiffs, and Mr. Charles Chambers Smith, the Surveyor, and that charge appeared in pargaraph 11 and subsequent paragraphs of the statement of defence.

The learned Counsel then referred to the material paragraphs in the statement of defence, from which it appeared that the defendants alleged that the certificate given by the Surveyor was not a certificate given by him under clause 30 of the contract, and that at the date of the certificate no sufficient work was done, and, further, that at the time the certificate was given the plaintiffs and the Surveyor well knew that the sum was not due from the defendants to the plaintiffs. Defendants further alleged that the contour of the road was not sufficient that the gravel was not sufficient, and so on, and therefore there was no justification for the Surveyor granting an interim certificate under the contract. All that was negative by the verdict of the jury, who found a verdict in the plaintiffs' favour. He (Counsel) contended that the jury had, by their verdict, brushed aside the charge of collusion between the plaintiffs and the Surveyor, and therefore that the plaintiffs were entitled to judgment upon the certificate given, because the certificate was conclusive that the sum was due to the plaintiffs.

The whole question in dispute was whether, in the circumstances, the plaintiffs were entitled to the sum certified by the Surveyor. The Surveyor was entitled by the contract to certify up to 80 per cent. of the contract sum, and when he was satisfied that the work was done the Surveyor was empowered to certify up to 90 per cent., and then there was a maintenance period, during which 10 per cent. was held in hand. What the other side said was that at the time the certificate was given it was undoubtedly a certificate for 90 per cent.

Mr. Shearman: It was for 85½ per cent.

Mr. Pollock: No. He said that there was not 90 per cent. due to the plaintiffs, and work had not been sufficiently done to justify the certificate for 90 per cent.

Lord Justice Kennedy: Was that question left to the jury?

Mr. Shearman: No.

Mr. Pollock, having read the contract, said that the whole difference between them was whether or not the Surveyor was entitled to take into account the extras which were ordered under the contract. If he could prove that the Surveyor was entitled to take into account the extras then he (Counsel) could prove that the actual sum due to the plaintiffs at the date of the certificate was 269*l.* 15*s.* 1*d.* It might be that he could not for a shilling or two justify the giving of the certificate by the Surveyor. By the contract, the certificate of the Surveyor was to be a condition precedent to payment by the contractors. The contract was dated February 2, 1910, and the work was commenced in February and completed in the following May. The first certificate was given on March 10, which was for 240*l.*, due to the plaintiffs on account. Later other progress certificates were given, and the amounts paid to the plaintiffs by the defendants. At the time the disputed certificate for 270*l.* was given there was due to the plaintiffs 64*l.* 15*s.* for extras, which made the contract price up to 1,032*l.* 11*s.* 5*d.*

Mr. Shearman: What about deductions?

Mr. Pollock replied that at that time there were not any deductions. There was no evidence that at that time the deductions had been ascertained. After deducting the 10 per cent., 103*l.*, that left 929*l.* 11*s.* 5*d.*; of that sum the defendants had paid the plaintiffs on certificates of the Surveyor a sum of 660*l.*, leaving due to the plaintiffs in respect of the contract and extras 269*l.* 11*s.* 5*d.* It was in respect of that that the 270*l.* certificate was given.

Mr. Shearman said that for this matter the Surveyor was called upon to resign, and he resigned. At the trial he sat next to the plaintiffs, and did not go into the witness box; therefore he gave no explanation of how he arrived at his figures. His (Counsel's) contention was that the defendants were entitled to say that in the circumstances the certificate did not bind them. His case was that the certificate, upon its face, was bad because it was common ground that at the date of the certificate the work was not completed and measured up.

Mr. Pollock said that the contract did not provide that the certificates should be given in any particular form, so that fact did not militate against the plaintiffs' claim, provided they had the certificate of the Surveyor, who was the arbitrator under the contract, the getting of the certificate being a condition precedent to the plaintiffs getting payment at all. Whatever the Surveyor did did not affect the plaintiffs' rights under the contract with the defendants.

On Wednesday, Lord Justice Vaughan Williams said that since the Court rose the previous day he had read the certificates, and he thought, as then advised, that the certificate for 270*l.* was not a final certificate, and that at the time it was given the Surveyor had not approved the work as a whole. If that was so, and there was nothing more, it was plain that the judgment of Mr. Justice Lawrance was right. He did not see that the findings of the jury had anything to do with the case.

Lord Justice Buckley: You have to satisfy me, Mr. Pollock, that at the date of the certificate 90 per cent. of the contract sum was due to the plaintiffs. I think it was only 80 per cent.

Mr. Pollock then read the judgment of Mr. Justice Lawrance, from which it appeared that his Lordship held that the certificate in question was not a final certificate, the Surveyor at the time not having expressed his approval of the quantity and quality of the work. His Lordship, being of opinion that the certificate was a progress certificate, the defendants were entitled to question it, which they would not have been entitled to do under the contract if the certificate had been a final certificate. His Lordship expressed the opinion that the proceedings were entirely misconceived, and entered judgment for the defendants.

Mr. Pollock said he had evidence that the work was completed, that it was properly examined by the Surveyor, and that he properly certified that the sum in question was due to the plaintiffs.

Mr. Shearman, in supporting the judgment of Mr. Justice Lawrance, said he submitted in the Court below that there were no questions proper to be left to the jury. He also said that the defendants had not charged that the plaintiffs and the Surveyor had been guilty of fraud.

Lord Justice Vaughan Williams: I have read a good deal of the evidence, and it struck me that, from what you said and asked, you clearly did raise the question that the sum of 270*l.* was not due.

Mr. Shearman: Yes, under the contract. One of my questions was that it was not only not due, but that they knew it was not due.

Lord Justice Vaughan Williams: I am still of opinion that you deliberately raised the question that the sum of 270*l.* was not due, and therefore you acquiesced in the questions being put to the jury.

Mr. Shearman: I say I did not charge fraud. I say that they were colluding only in getting money which they knew was not due, but which they knew would become due eventually.

Lord Justice Vaughan Williams: That is an imputation of fraud. It would be shocking if honest men could do anything of the sort. That is fraud.

Mr. Shearman said he was sorry to hear his Lordship say so. He contended that there was no evidence to justify the findings of the jury, and that the certificate in question was not a final certificate, but only a progress certificate. He submitted there was no evidence on which the jury could find that at the time the certificate was issued the contract was completed.

Mr. Shearman, continuing his address, contended that the certificate which the Surveyor had given for 270*l.* could not, in any circumstances, having regard to the terms of the contract, be construed to be a final certificate. Before the Surveyor could issue a final certificate he must have gone and inspected the work and certified in writing that the work was completed.

Lord Justice Kennedy: Had he not done that when he says the amount of work done was so much?

Mr. Shearman: No, I submit not. You cannot arrive at the final amount until you have measured up. I say he cannot give the final certificate until he has arrived at and certified the reductions. I say he has got to measure up and value. I asked the plaintiff over and over again had there been any measuring up, and he said there had not, and that it had to be settled afterwards. The plaintiff said that they had arrived at the extras approximately. I say, therefore, that no event has happened on which the plaintiffs were entitled to a 90 per cent. certificate. I submit that this is a perfectly plain common form of contract. It amounted to this, that 80 per cent. could be paid to the contractors during the progress of the work when certified by the Surveyor, and that when the matter was finally settled, then maintenance period commenced when 10 per cent. was to be withheld as a security for what might happen during the period of maintenance. I contend that that period never happened under this contract, and that no 90 per cent. certificate could be given until the period of maintenance began.

[The case was proceeding as we went to press.]

OBITUARY.

Professor Legros.

We regret to announce the death, on December 8, at his residence, Melbury, Watford, of Professor Alphonse Vivant Legros, aged seventy-four years, who was Professor of Fine Arts, University College, in 1876-94. A native of Dijon, Professor Legros began life as an apprentice to a house-decorator; he then entered the *ateliers* of Cambon, the scene-painter, and Lecoq de Boisbaudran, and studied in the Ecole des Beaux-Arts. In 1863 he sent "Le Lutrin" to the Salon, and became a teacher in the South Kensington School of Art, and afterwards in University College, being appointed Slade Professor in 1876. Examples of his work are in many public and private collections—including his "Ex Voto" in Dijon Museum; "Dead Christ" and "Amende Honorable" in the Luxembourg; and "Femmes en Prière," a portrait of Mrs. John Grey, and the memorial portrait in silver-point of Alfred Stevens in the Tate Gallery; drawings and etchings in the British Museum; and his portraits of Huxley, Marshall, Cassel, Burne-Jones, and Browning at South Kensington. He executed the bronze and granite fountains at Welbeck nine years ago. Of his many other works we may mention his "Mort du Vagabond"; portraits of Carlyle, Manning, Dalou, and Gambetta, and the Watts, Darwin, Tennyson, and J. S. Mill medals. In our "Note" of November 17 we adverted to his high appreciation of Alfred Stevens and to his efforts for the establishment of the Stevens Room in the Tate Gallery. Professor Legros married, in 1864, Miss F. R. Hodgson, and received letters of naturalisation in 1881. Sir Charles Holroyd, Mr. Strang, Lady Stanley, and Countess Gleichen were his pupils.

Mr. J. R. Carroll.

The late Mr. James Rawson Carroll, of Dublin, was a Fellow of the Royal Institute of the Architects of Ireland, and served during many years as member of the Council. He was elected a Fellow of the Royal Institute of British Architects in 1876. With his partner, Mr. Frederick Batchelor, F.R.I.B.A., practising at No. 183, Great Brunswick-street, Dublin, he was the architect of—in Dublin—the Richmond Surgical Hospital, in North Brunswick-street, for eighty-five beds (and provision for future considerable extension), with central and administration blocks, two wing-pavilions, home for thirty-one nurses, operation-theatre block, etc. (1901); the new buildings for out-patients and 120 in-patients, and with sanitary annexes, to combine under one roof the St. Mark's Ophthalmic Hospital, Lincoln-place; and the Provincial Banking Company's premises, Belfast (1903); Limerick Workhouse; and additions, at a cost of more than 10,000*l.*, to the Great Southern Hotel, Killarney, eleven years ago.

M. Fleury.

We have also to announce the death, on December 7, in Paris, of M. Tony Robert Fleury, President d'Honneur de la Société des Artistes Français, aged seventy-three years. He was a pupil of his father, J. N. R. Fleury, and of Cogniet and Paul Delaroche. M. Fleury first exhibited in the Salon in 1866—with "Warsaw: Massacre of April, 1861." He painted many portraits, "Le Lever de l'Ouvrière" and "Marie Antoinette, le Matin de son Exécution"; his "Le dernier jour de Corinthe," for which he gained a medal of honour, is, with several others by him, in the Luxembourg Gallery.

OBITUARY.—*Continued on page 727.*

List of Competitions, Contracts, etc.

For some Contracts still open, but not included in this List, see previous issues. **Those with an asterisk (*) are advertised in this number**: Competitions, —; Contracts, iv. vi. viii. x.; Public Appointment, —; Auction Sales, xxiv.

Certain conditions beyond those given in the following information are imposed in some cases, such as: the advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

*** It must be understood that the following paragraphs are printed as news, and not as advertisement; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.

Competitions.

DECEMBER 15.—**Sofia.**—NEW MUNICIPAL BUILDING.—See Competition News, page 508, November 3.

DECEMBER 21.—R.I.B.A. Prizes and Studentships. Work to be sent to 9, Conduit-street, before 4 p.m.

DECEMBER 29.—**Glasgow.**—DESIGN FOR A BRIDGE.—Designs are invited (Alexander Thomson Travelling Studentship) for a bridge. Premiums of 60*l.* and 20*l.* are offered. See advertisement in issue of December 24, 1910, for further particulars.

DECEMBER 30.—**Armadale.**—Public hall and offices, to cost 2,500*l.* Premiums of 15*l.* and 10*l.* Open only to architects who were represented on the site on October 12.

DECEMBER 30.—**Welsh Eisteddfod, 1912.**—DESIGNS FOR WORKMEN'S DWELLINGS.—Prize, 50*l.* Particulars from Welsh Housing Association, 9, Temple-chambers, E.C.

JANUARY 1, 1912.—**Rochdale Infirmary.**—EXTENSIONS.—Limited to Rochdale architects. Assessor, Mr. Alex. Graham, F.R.I.B.A.

JANUARY 6, 1912.—**Bolton.**—Miners' Federation Hall and Offices. Limited to architects within twenty-five miles of Bolton. Premiums, 50*l.* and 25*l.* Assessor, Mr. Jonathan Simpson, F.R.I.B.A. Particulars from Messrs. Fielding & Fernihough, 7, Fold-street, Bolton.

JANUARY 6, 1912.—**Stafford.**—PUBLIC LIBRARY.—The Stafford Corporation invite designs for a Public Library. Mr. Henry T. Hare, F.R.I.B.A., assessor. Second and third premiums of twenty and forty guineas. Deposit, 1*l.* Particulars from Mr. W. Plant, A.M.Inst.C.E.

JANUARY 8, 1912.—**Banbury.**—WORKMEN'S DWELLINGS.—The Banbury T.C. invite designs for workmen's dwellings. See advertisement in issue of December 8 for further particulars.

JANUARY 9, 1312.—**Magherafelt.**—TECHNICAL SCHOOL.—Particulars from Mr. W. D. Cousins, County Technical Office, Court-house, Coleraine.

JANUARY 9, 1912.—**Spennymoor.**—PUBLIC HALL, ETC.—The Spennymoor U.D.C. invite competitive plans and designs for a public hall, market, and offices, etc. Three premiums are offered. See advertisement in issue of December 1 for further particulars.

JANUARY 29, 1912.—**Montevideo.**—Government palace (premiums, 2,125*l.* and 850*l.*) and town improvement scheme (premiums, 1,060*l.*, 640*l.*, and 425*l.*). Conditions may be seen at the Board of Trade, 73, Basinghall-street, E.C.

JANUARY 31, 1912.—**Australia.**—DESIGNS FOR FEDERAL CAPITAL CITY.—The Government of the Commonwealth of Australia invite competitive designs for the laying out of this Federal capital city. See advertisement in issue of September 1 for further particulars. See also page 508, November 3.

FEBRUARY 3, 1912.—**Bolton.**—NURSES' HOME AT THE INFIRMARY.—Premiums of 30*l.*, 20*l.*, and 10*l.* Assessor, Mr. John B. Gass, F.R.I.B.A.

FEBRUARY 17, 1912.—**London, E.C.**—NEW OFFICES.—The Port of London Authority invite preliminary sketch designs for new head offices in Trinity-square, and for laying out remainder of land as a building site. See advertisement in issue of November 24 for further particulars.

MAY 1, 1912.—Society of Architects' Travelling Studentship. Design for a Town Hall. 25*l.* and medal.

JULY 1, 1912.—**Dusseldorf.**—A plan for the extension of the City of Dusseldorf. Premiums of 1,000*l.* to 375*l.* Conditions on application to the Chief Burgomaster, Dusseldorf. A translation appeared on page 365, September 29.

NO DATE.—**Jordanhill, Glasgow.**—PROPOSED TRAINING COLLEGE.—Limited to six firms, named in Competition News, December 1, page 635.

Contracts.

BUILDING.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

DECEMBER 15.—**Denby Dale.**—HOUSES, ETC.—Erection of three dwelling-houses and boundary walls at Kitchenroyd. Plans seen, and quantities from Messrs. John Kirk & Sons, architects, Central-buildings, Market-place, Huddersfield.

DECEMBER 15.—**Dundalk.**—SHOP FRONT, ETC.—For new shop front and alterations to premises in Earl-street. Mr. W. S. Barber, M.R.I.A.I., Francis-street, Dundalk, architect.

DECEMBER 15.—**Essex.**—SCHOOL, ETC.—Erection of manual cookery and housewifery centre at Tilbury, and erection of a special school at Grays Mr. C. M. Shiner, A.R.I.B.A., architect, 10, Duke street, Adelphi, W.C.

DECEMBER 15.—**Penzance.**—PAVILION, ETC.—For erection of a pavilion and winter garden. Plans and conditions and quantities from Messrs. Cowell & Drewitt, Lic.R.I.B.A., architects, Lennards-chambers, Penzance. Deposit of 3*l.* 3s.

DECEMBER 15.—**Pontrhondda.**—ENLARGEMENTS, ETC.—Erection of a new department and the enlargement of the existing departments of the Council school. Plans and specification seen, and quantities and tender form from the architect, Mr. J. Rees, Hillside Cottage, Pentre. Deposit of 2*l.* 2s.

DECEMBER 16.—**Londonderry.**—WALL.—For erection of a boundary wall on the Workhouse road. Plans and specification from Messrs. Robinson & Davidson, A.R.I.B.A., Richmond-street, Londonderry.

DECEMBER 16.—**Penzance.**—STORES.—For building a new stores at Causewayhead. Plans and specifications from Mr. H. Maddern, architect, Morrab-road, Penzance.

DECEMBER 16.—**Tattenhall.**—SCHOOL.—Erection of new Council school. Plans and specifications from Mr. H. Beswick, F.R.I.B.A., County Architect, Newgate-street, Chester. Quantities on deposit of 1*l.*

DECEMBER 18.—**Ashford.**—ROOF, ETC.—For heating of the cloakroom and the erection of a roof over portion of open yard to form a cycle shed, at the Ashford County School for Girls. Specifications by the architect, Mr. W H. Robinson, Caxton House, Westminster, seen at the offices of Mr. J. Quick, Technical Institute, Folkestone, Kent.

DECEMBER 18.—**Beckenham.**—REPAIRS, ETC.—For decoration and repairs at the public elementary schools during the holidays. Specifications and forms of tender from Mr. John A. Angell, Surveyor. Deposit of 1*l.*

DECEMBER 18.—**Carlisle.**—HOME, ETC.—For erection of nurses' home and pavilions for consumptives at Fusehill Workhouse. Mr. G. Armstrong, architect, 24, Bank-street, Carlisle.

DECEMBER 18.—**Carmarthenshire.**—RESIDENCE.—Erection of a residence at Newcastle Emlyn. Plans and specifications from the architect, Mr. F. W. Child, architect and surveyor, Dolaeron, Aberayron.

DECEMBER 18.—**Durham.**—PRINTING PREMISES.—Erection of new printing premises at Esh Winning, for Messrs. M. D Elliott & Sons. Plans and specifications at the offices, Durham-road, Esh Winning.

DECEMBER 18.—**Oldham.**—PAVILION, ETC.—For new pavilion, three tennis courts, and draining, levelling, and relaying with turf, site for football ground, at Netherhey Playing Fields. Plans and specifications seen, and quantities and forms of tender from the Borough Surveyor, Town Hall. Deposit of 1*l.* 1s.

DECEMBER 18.—**Seacombe.**—SHELTER, ETC.—Erection of shelter and bowl house, North Seacombe Recreation Ground. Plans and specifications from Mr. W. H. Travers, A.M.Inst.C.E., Borough Engineer and Surveyor, 18, Falkland-road, Egremont, Wallasey. Deposit of 1*l.*

DECEMBER 18.—**Warrington.**—BATHROOM.—Erection of a bathroom to No. 72, Mersey-street. Drawings seen, and quantities from Mr. Thos. Longdin, Borough Engineer and Surveyor, Borough Engineer and Surveyor's Office.

DECEMBER 19.—**Acton.**—OFFICE, ETC.—Construction of a weighbridge pit and the erection of a corrugated-iron office at the Sewage Works. Drawings seen, and specifications, quantities, and forms of tender from the Surveyor, Council Offices, Winchester-street, Acton, W

DECEMBER 19.—**Durham.**—HOUSES.—For erection of three dwelling-houses at Earl's House Industrial School. Plans, specification, and general conditions of contract from Mr. W. Rushworth, Shire Hall, Durham.

DECEMBER 19.—**Huntingdon.**—BUILDINGS.—Erection of new depôt buildings near Botolph Siding. Plans and specifications from Mr. H. Leete, County Surveyor, 36, High-street, Huntingdon.

DECEMBER 19.—**London.**—REPAIRS, ETC.—Repairs and redecoration work at 1-24, Knott's-terrace, and 47, Tanner's hill, Deptford. Specifications, conditions, and forms of tender from the Borough Surveyor, Town Hall, New Cross-road, S.E.

DECEMBER 19.—**Stockport.**—DEPARTMENT.—For erection of butchery department, Brinksway branch, for the Stockport Industrial and Equitable Co-operative Society, Ltd. Quantities from Mr. S Taylor, General Secretary, on deposit of 10s. 6d. Drawings with Messrs. Wrathmell & Blackshaw, architects, Queen's-buildings, St. Peter's-square, Stockport.

DECEMBER 20.—**Bradford.**—SWITCH-ROOM.—Erection of a switch-room and an air filtration chamber at Electricity Works and erecting the constructional iron and steel work for the buildings. Specifications, conditions, quantities, and forms of tender from Mr. T. Roles, City Electrical Engineer and Manager, Electricity Offices, Town Hall, Bradford. Deposit of 1*l.* 1s.

DECEMBER 20.—**Caerphilly.**—HOUSES.—Erection of eighteen houses on the Tir Merchant Estate Plans and specifications from Messrs. T. E. Richards & Kaye, architects, Pontypridd and Cardiff.

DECEMBER 20.—**Cobholm Island.**—SCHOOL.—Erection of a new boys' school at Cobholm Island. Plans, specification, and conditions of contract seen, and quantities from the Borough Surveyor, Town Hall, Great Yarmouth.

DECEMBER 20.—**Desborough.**—WORKS.—For provision and laying of cast-iron pipes and valves, providing and fixing pumping machinery and fencing, and the building of a storage tank, engine-house, collecting drain, etc Drawings from the engineers, Messrs. Everard, Son, & Pick, 6, Millstone-lane, Leicester. Quantities on deposit of 2*l.* 2s.

DECEMBER 21.—**Dunfermline.**—BUILDINGS.—For buildings proposed to be erected on the site on Halbeath-road, opposite Garvock Farm Plans from the architect, Mr. R H. Motion, 39, Bridge-street, Dunfermline, and quantities on deposit of 1*l.* 1s.

* DECEMBER 21.—**London, W.**—DEEPENING WELL.—The St. Pancras Guardians invite tenders for deepening well at Workhouse, King's-road, N.W.—See advertisement in this issue for further particulars.

DECEMBER 21.—**Treharris.**—ALTERATIONS.—For various alterations to Newport House, for Messrs. the Treharris Workmen's Co-operative Society. Plans and specification from Mr. William Dowdeswell, M.S.A., architect, Treharris.

DECEMBER 22.—**Birmingham.**—SUBWAY.—Construction of a subway at Birmingham new Parcel Office. Drawings, specification, and a copy of the conditions and form of contract with Mr. J. Tosh, H.M. Office of Works, Pinfold-street, Birmingham. Quantities and forms of tender, on deposit of 1*l.* 1s., from the Secretary, H.M. Office of Works, etc., Storey's-gate, London, S.W.

DECEMBER 22.—**Henfryn, Wales.**—HOUSE, ETC.—Erection of a new farm-house and buildings forming a new homestead, and additions and alterations to the existing dwelling-house and buildings. Plans, specifications, and form of tender from Mr. P. Wilson-Jones, F.A.I., County Agent, Newtown.

DECEMBER 22.—**Milborne St. Andrew.**—ALTERATIONS.—For alterations to the County Boys' Home Industrial School. Plans, specifications, and forms of tender from Messrs. Fletcher, Son, & Brett, Wimborne.

DECEMBER 22.—**Yeovil.**—ADDITIONS.—For additions and alterations to the Church of England Schools, West Coker. Plans and specifications with Mr. Arthur J. Pictor, A.R.I.B.A., architect, Bruton, Somerset.

DECEMBER 23.—**Hounslow.**—HOSPITAL.—For erection of a new hospital and other work at Staines-road. Drawings, specifications, and form of contract seen, and quantities and form of tender from Mr. H. R. Peake, 213, High-street, Hounslow, on deposit of 1*l.* 1s.

DECEMBER 23.—**Huddersfield.**—DWELLINGS.—For erection of thirty-eight workmen's tenement dwellings, Wakefield-road, Moldgreen Plans and specifications seen, and quantities and forms of tender from Mr. K. F. Campbell, M.Inst.C.E, Borough Engineer and Surveyor, 1, Peel-street.

DECEMBER 23.—**Macclesfield.**—HOME, ETC.—For erection at the Workhouse of a nurses' home, mortuary, and extension of the infirmary. Drawings and specifications seen, and quantities from Messrs. Whittaker & Bradburn, 19, King Edward-street, Macclesfield, on deposit of 1*l.* 1s.

DECEMBER 26.—**Horsham.**—ADDITIONS.—For alterations and additions to the Grammar School. Plans, specifications, and conditions of contract seen, and quantities and form of tender from Mr. Haydn P. Roberts, A.R.I.B.A., County Education Architect, Thurloe House, High-street, Worthing, on deposit of 1*l.* 1s.

DECEMBER 26.—**Storrington.**—ADDITIONS.—For alterations and additions to the Council school. Plans and conditions of contract seen, and specification and form of tender from Mr. Haydn P. Roberts, A.R.I.B.A., County Education Architect, Thurloe House, High-street, Worthing, on deposit of 1*l.* 1s.

DECEMBER 26.—**Birkdale.**—PAVILION, ETC.—Erection of caretaker's lodge, cricket pavilion, and bowls house. Plans, drawings, and specification seen, and quantities at the Town Hall, Birkdale. Deposit of 10s. Mr. J. F. Kealey, Clerk of the Council, Clerk's Office, Town Hall, Birkdale.

BUILDING—continued.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

DECEMBER 30. — **Birmingham.** — EXTENSION.—Erection of an extension to the station in Chester-street, Aston. Quantities, on deposit of 2l. 2s., from the Quantity Surveyor, Mr. Christopher Silk, 33, Newhall-street, Birmingham. The drawings seen at the offices of the architects, Messrs. Arthur Harrison & Cox, Council Chambers, 169, Colmore-row, Birmingham.

JANUARY 2, 1912. — **West Hartlepool.**—TRAMWAY.—For the laying of about 1¼ miles equivalent single track of tramway. Plans and conditions seen, and specification and quantities, on deposit of 1l. 1s., from Mr. Nelson F. Dennis, M.Inst.C.E., Borough Engineer, Municipal Buildings.

* JANUARY 3, 1912.—**Sheffield.**—TELEPHONE EXCHANGE.—The Commissioners of H.M. Works and Public Buildings invite tenders for erection of Attercliffe, Sheffield, new Telephone Exchange. See advertisement in this issue for further particulars.

* JANUARY 5, 1912.—**Barking.**—SCHOOL.—The Barking Town Education Committee invite tenders for an elementary school in Ripple-road. See advertisement in this issue for further particulars.

JANUARY 5, 1912.—**Breconshire.**—ALTERATIONS, ETC.—For the following works, for the Breconshire Education Committee:—Crickhowell Council School, erection of new cloakrooms and alterations to existing building; Llanganten Council School, addition of new classroom, new cloakrooms, etc., and alterations to existing building; Talgarth Council School, erection of new girls' cloakroom and other works. Mr. C. W. Best, Surveyor to the Breconshire Education Committee, County Hall, Brecon.

* JANUARY 5, 1912. — **Edenbridge.** — SPECIAL SUBJECTS BUILDING.—The Kent Education Committee invite tenders for special subjects building. See advertisement in this issue for further particulars.

* JANUARY 5, 1912.—**Portsmouth.**—POST-OFFICE EXTENSION.—The Commissioners of H.M. Works and Public Buildings invite tenders for demolition of old premises and extension of Head Post-office. See advertisement in this issue for further particulars.

* JANUARY 5, 1912.—**Welling, Kent.**—SCHOOL.—The Kent Education Committee invite tenders for new Council school at (Bexley) Welling. See advertisement in this issue for further particulars.

* JANUARY 6, 1912. — **Guildford.** — COTTAGES.—The Guildford B.C. invite tenders for erection of twenty cottages in Cline-road. See advertisement in this issue for further particulars.

* JANUARY 6, 1912. — **Manchester.**—SCHOOL.—The Manchester Education Committee invite tenders for a new school of domestic economy. See advertisement in this issue for further particulars.

JANUARY 6, 1912.—**Pontardawe.**—SEWAGE DISPOSAL WORKS.—Construction of storm-water tanks, screening chamber, detritus tanks, septic tanks, circular percolating filters, humus tanks, and the levelling and laying-out of land at the cutfall, etc. Plans seen, and quantities, conditions, and form of tender from the Engineer, Mr. John Morgan, Herbert-chambers, Pontardawe, on deposit of 5l. 5s.

* JANUARY 8, 1912.—**Loose, Kent.**—SCHOOL.—The Kent Education Committee invite tenders for new Council school. See advertisement in this issue for further particulars.

JANUARY 8, 1912. — **Pembroke.** — SCHOOL.—For erection of a new Council school at St. Ishmaels. Drawings and specifications from the architect, Mr. D. E. Thomas, 17, Victoria-place, Haverfordwest.

* JANUARY 10, 1912.—**Camberwell.**—EXTENSION OF WORKHOUSE.—The Camberwell Guardians invite tenders for erection of additional accommodation for nurses at the Workhouse in Constance-road, S.E. See advertisement in this issue for further particulars.

* JANUARY 11, 1912.—**East Elloe.**—COTTAGES.—The East Elloe R.D.C. invite tenders for the erection of cottages within certain parishes. See advertisement in this issue for further particulars.

JANUARY 11, 1912.—**Fakenham.**—SCHOOL, ETC.—Erection of new school and erection of cookery and manual instruction rooms. Mr. H. J. Green, architect, Castle-meadow, Norwich. Quantities on deposit of 1l. 1s.

JANUARY 11, 1912. — **London.** — SCHOOL.—Erection of a new County High School for Girls, at Church-hill, Walthamstow, Essex. Plans and specifications by the architect, Mr. C. J. Dawson, F.R.I.B.A., 11, Cranbrook-road, Ilford, Essex. Deposit of 5l.

* JANUARY 11, 1912.—**Walthamstow.**—SCHOOL.—The Walthamstow Higher Education Sub-Committee invite tenders for the erection of a new County High School for 300 girls. See advertisement in this issue for further particulars.

* JANUARY 15, 1912.—**Stratford.**—ADDITIONS, ETC., TO SCHOOLS.—The West Ham Education Committee invite tenders for alterations and additions to Colegrave-road and Water-lane schools. See advertisement in this issue for further particulars.

JANUARY 18, 1912. — **Halifax.**—WORKS.—Extension of the sludge-pressing works, gauge weirs, lime-mixing plant, etc., at the Sewage Disposal Works, Copley. Plans and specifications seen, and forms of tender from Mr. James Lord, M.Inst.C.E., Borough Engineer, Town Hall, Halifax. Deposit of 10l.

NO DATE. — **Addlestone.** — ALTERATIONS.—For alterations at Addlestone. Quantities, form of tender, etc., from Mr. Henry J. Brookes, Secretary, Princess Mary Village Homes, Addlestone.

NO DATE. — **Earlsheaton.**—HOUSES.—Erection of four houses at Bank Top. Plans and quantities from Messrs. John Barton & Son, architects and surveyors, Halifax-road, Dewsbury.

NO DATE.—**Keighley.**—EXTENSIONS.—For extensions to the Technical Institute. Quantities from Messrs. W. H. & A. Sugden, architects, North-street, Keighley.

NO DATE. — **Laisterdyke.**—HOUSES.—Erection of five houses and a stable in Broad-lane, Laisterdyke. Apply Gillam, Hammerton-street, Bradford.

ENGINEERING, IRON, AND STEEL.

DECEMBER 20.—**South Shields.**—PIPING, ETC.—For erection of suction and delivery piping for one centrifugal pump, steam piping to turbine separator, injection to and discharge from condenser, and alterations on existing piping consequent upon the installation of the foregoing. Specification, conditions, and drawings from Mr J. H. Cawthra, M.Inst.E.E., A.M.Inst.M.E., Borough Electrical Engineer, South Shields. Deposit of 10s. 6d.

DECEMBER 21. — **Manchester.** — HEATING.—For fixing low-pressure heating apparatus at the Gibbon-street Municipal School, Beswick. Plans and quantities at the Education Offices, Deansgate, Manchester, on deposit of 1l. 1s.

DECEMBER 25. — **Glasgow.**—BRIDGES.—For the renewal of the superstructures of five underbridges on the Balerno and Wilsontown branches, for the Caledonian Railway Company. Drawings at the office of the Company's Engineer, Buchanan-street Station, Glasgow. Specification and schedule on deposit of 2l. 2s.

JANUARY 5, 1912. — **Cardigan.**—BRIDGE.—Erection of a culvert bridge and wing walls at Aberporth. Plans and specifications at the Clerk's Office, Quay-street, Cardigan. Mr. David Davies, Clerk to the Council.

FURNITURE, PAINTING, MATERIALS, etc.

DECEMBER 16. — **Settle.**—PAINTING.—For painting six cottages, Batty Croft, Settle. Specifications at Mr. Charlesworth's, Settle.

DECEMBER 18. — **Ashton-under-Lyne.**—PAINTING. — For the painting, distempering, etc., of Charlestown, Christ Church Central, Gatefield, and Holy Trinity Schools. Specifications at the Education Office. Mr. John Neal, Borough Comptroller, Town Hall, Ashton-under-Lyne.

* DECEMBER 18.—**East Ham.**—DEMOLITION.—The East Ham Education Committee invite tenders for the demolition of the old vicarage building, and for removal of the old material. See advertisement in this issue for further particulars.

DECEMBER 18. — **Plymouth.**—PAINTING.—For outside painting work at the Hele's Charity Almshouses, Prince Rock. Mr. W. H. Davy, Clerk to the Managers, Greenbank-road, Plymouth.

* DECEMBER 19. — **Dartford.** — IRON AND WOOD FENCING.—The Metropolitan Asylums Board invite separate tenders for supply and delivery of iron and wood fencing materials. See advertisement in this issue for further particulars.

DECEMBER 20. — **Canterbury.**—PAINTING.—For distempering, painting, etc., at the city police-station. Particulars from Mr. A. C. Turley, A.M.Inst.C.E., City Surveyor, Guildhall-street, Canterbury.

DECEMBER 20. — **Harrogate.**—PAINTING, ETC.—For colouring, painting, whitewashing, etc., at the Royal Bath Hospital and Rawson Convalescent Home, Harrogate. Mr. B. Shaw, Secretary.

* JANUARY 6, 1912 — **Manchester.** — RED AND BUFF TERRA-COTTA. — The Manchester Education Committee invite tenders for supply of red and buff terra-cotta. See advertisement in this issue for further particulars

ROADS, SANITARY AND WATER WORKS.

DECEMBER 16.—**Chorley.**—MAINS.—For laying of cast-iron water-mains, with valves, hydrants, etc. Particulars, on deposit of 1l., from Mr. A. Jolly, Surveyor, 9, High-street, Chorley.

DECEMBER 16.—**Hayward's Heath.**—MATERIAL.—For supply of broken granite and flints. Particulars and forms of tender from Mr. A. Macarthur, C.E., Surveyor, Council Offices, Hayward's Heath.

DECEMBER 16. — **Totnes.**—FOOTPATHS, ETC.—For erecting and forming fences, forming footpaths, and other works in connexion with the cemetery extension. Plans and specifications from the Borough Surveyor, Mr. W. F. Tollit.

DECEMBER 18. — **Blackpool.** — STREETS.—For sewering and forming private streets. Plans and specification with Mr. J. S. Brodie, Borough Engineer, Town Hall, Blackpool. Quantities on deposit of 1l.

DECEMBER 18. — **Blackrock.** — ROADWAY.—For widening roadway at Temple Hill and at Rosefield. Plans and specifications at the Town Clerk's Office, Town Hall, Blackrock. Mr. R. F. Heron, Town Clerk.

DECEMBER 18. — **Glasgow.** — STREETS. — For paving Fisher-street and M'Intosh-street with tar macadam. Specifications and forms of tender at the Office of Public Works, 64, Cochrane-street. Mr. A. W. Myles, Town Clerk.

DECEMBER 18.—**Guildford.**—ROAD.—For the extension of Cline-road. Plans and specification seen, and form of tender from Mr. C. G. Mason, A.M.Inst.C.E., Borough Surveyor, Tunsgate.

DECEMBER 18. — **Thurstonland.** — MAIN.—For laying cast-iron water main from Lydgate to Thurstonland. Plans seen, and quantities from Mr. J. Berry, Architect and Surveyor, 3, Market-place, Huddersfield.

DECEMBER 20.—**Barlestone.**—SEWER.—For providing and laying earthenware socket pipe sewer. Plans and specifications from Mr. W. M. Sykes, Surveyor, Ibstock.

DECEMBER 22.—**Reading.**—SEWER.—For laying pipe sewer in Basingstoke-road. Drawing and specification seen, and forms of tender from Mr. John Bowen, A.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Reading.

DECEMBER 28.—**Newmains.** — DRAINAGE.—For the construction of a sewerage system and sewage purification works. Plans seen, and specification from Mr. W. L. Douglass, M.Inst.C.E., District Engineer, District Offices, Hamilton. Deposit of 1l.

DECEMBER 30. — **Derby.** — STONE.—Supply of broken stone. Form of tender and conditions of contract from Mr. J. W. Horton, A.M.Inst.C.E., County Surveyor, County Offices, St. Mary's-gate, Derby.

JANUARY 1, 1912. — **Berkshire.** — MATERIALS.—Supply of broken road materials, gravel, and sand. Forms of tender from Mr. J. Fred. Hawkins, County Surveyor, The Forbury, Reading.

JANUARY 15, 1912. — **Gloucester.** — STONE.—Supply of stone for use on main roads. Forms of tender from Mr. E. S. Sinnott, M.Inst.C.E., County Surveyor, Shire Hall, Gloucester.

* JANUARY 16, 1912. — **Tottenham.** — UNDERGROUND CONVENIENCE. — The Tottenham U.D.C. invite tenders for erection of an underground convenience in Bruce Grove. See advertisement in this issue for further particulars.

Auction Sale.

Nature and Place of Sale.	By whom Offered.	Date of Sale.
*FREEHOLD BUILDING LAND, FULHAM, S.W.—At the Mart	Edwin Fox, Bousfield, Burnetts, & Baddeley	Jan. 10

OBITUARY—*Continued from page 725.*

M. E. Saglio.

M. Edmond Saglio, member of the Académie des Inscriptions et Belles Lettres, and, until 1905, director of the Cluny Museum, died in Paris, aged eighty-three years, on December 8. With M. Daremberg he began, in about 1870, his great work, the "Dictionary of Greek and Roman Antiquities." He was director of the Gobelins factory, and afterwards Conservator of the Department of Mediæval Sculpture in the Louvre.

Mr. G. Gordon Hoskins.

The *Newcastle Chronicle* records the death, at his residence, Harewood-grove, Darlington, of Mr. George Gordon Hoskins. The deceased gentleman, who had attained the age of seventy-four, retired from practice in 1907, being succeeded by his brother, Mr. Walter H. Hoskins, and latterly he had been in very indifferent health. Mr. Hoskins' chief work perhaps was the Middlesbrough Municipal Buildings and Town Hall, which were erected in 1883 and 1884, at a cost of 120,000*l*. At Darlington some of his works are the Queen Elizabeth Grammar School, the Edward Pease Public Library, the hospital and dispensary, and the fever hospital. He also designed the Hartlepools Exchange at West Hartlepool. Amongst his other works are cemetery chapels and churches at Darlington and South Stockton. Mr. Hoskins was the eldest son of the late Capt. Francis Hoskins, of the 1st Royals, his mother being Julia, second daughter of Mr. William Hill, of Temple House, near Portsmouth. Educated at private schools in London and Paris,

Mr. Hoskins entered upon the profession of architect by becoming a pupil of Mr. W. D. Haskoll, of Westminster. He went, in 1864, to Darlington, where his abilities found early recognition, and his work is to be found in every part of the district. It consists of numerous mansions and villa residences, and among his other erections may be mentioned banks at Bishop Auckland, Sunderland, Middlesbrough, Barnard Castle, and Thirsk. Mr. Hoskins was appointed a Darlington Borough Magistrate in 1892, and he was elected to the County Bench in 1908. He was for some years Chairman of the Borough Licensing Committee. For a considerable period he was a member of the Darlington Town Council.

PATENTS.

APPLICATIONS PUBLISHED.*

26,394 of 1910.—John Hutton: Gully grid.

27,032 of 1910.—Robert Thomson and William Affleck Thomson: Ferro-concrete floors.

27,373 of 1910.—George Hatton: Bar for use in reinforced concrete.

27,374 of 1910.—George Hatton: Reinforced concrete.

27,653 of 1910.—Vittorio Storti: Method of and apparatus for reproducing solids, statuary, and the like.

28,858 of 1910.—Frederick Bath Burley and Ernest Jones: Combination ranges, coppers, and baths.

1,168 of 1911.—R. Waygood & Co. and Henry Cecil Walker: Lifts and hoists.

2,942 of 1911.—William Anderson: Siphon cisterns.

7,185 of 1911.—Francis Henry Crittall: Manufacture of metal casements.

13,956 of 1911.—Ferdinand Burcharts: Hollow building blocks.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

December 1.—By HARRY BALL.

Bedford.—11 and 13, Denmark-st., f., y.r. 31l.... £500

December 4.—By FOSTER & CRANFIELD.

Hanwell.—Deans-rd., f.g. rents 10l. 10s., reversion in 98 yrs. 230

West Ealing.—Leighton-rd., f.g. rents 15l. 15s., reversion in 98 yrs. 340

Lecland-ter., f.g. rents 15l., reversion in 98 yrs. 345

By LOCKING & WALKER.

Clapton.—1 and 2, Heyworth rd., f., y.r. 81l. ... 850

By HUMBERT & FLINT.

Warcop, Westmorland.—Tarn Moor Farm, 46 a. 2 r. 35 p, f. and c. 682

By FRANK LLOYD & SONS.

Broomhall, Cheshire.—Baddington Estate, 1,908 acres, f. 73,750

December 5.—By S. WALKER & SON.

Fulham.—New Kings-rd., f.g. rents 51l. 8s., reversion in 65 yrs. 1,100

Battersea.—Culvert-rd., f.g. rents 22l., reversion in 59 yrs. 400

Culvert-rd., etc., f.g. rents 28l., reversion in 41 to 49 yrs. 710

Brougham-st., f.g. rents 44l. 10s., reversion in 50 to 56 yrs. 907

Brougham-st., f.g. rents 15l., reversion in 49 yrs. 370

Brougham-st., f.g. rents 27l. 10s., reversion in 63 and 64 yrs. 537

Berkley-st., etc., f.g. rents 23l., reversion in 48 to 57 yrs. 455

Tottenham.—Crantbrook-rd., f.g.r. 6l., reversion in 68 yrs 110

December 6.—By BAXTER, PAYNE, & LEPPER.

Beckenham, Kent.—122 to 130 (even), Mackenzie-rd., u.t. 88 yrs., g.r. 20l., w.r. 137l. 16s. 700

Tottenham.—136 and 138, Cornwall-rd., f., w.r. 67l. 12s 340

By EDWIN FOX, BOUSFIELD, BURNETTS, & BADDELEY.

Limehouse—12, Locksley-st., u.t. 48 yrs., g.r. 4l., y.r. 26l. 165

By HEATH, BROOK, & SNEATH.

Norwood.—18, Becondale-rd., u.t. 44 yrs., g.r. 8l., y.r. 30l. 100

By WILTSHIRE & Co.

Finchley.—Durham-rd., f.g. rents 14l. 14s., reversion in 89 yrs. 350

Hertford-rd., f.g. rents 22l. 1s., reversion in 89 yrs. 525

Bowes Park.—Maidston-rd., f.g. rents 17l., reversion in 89 yrs. 435

Warwick-rd., f.g. rents 17l., reversion in 89 yrs. 425

Tooting.—Park-rd., f.g. rents 14l. 17s., reversion in 72 yrs. 295

Wandsworth.—Garrett-la., f.g.r. 10l. 10s., reversion in 71 yrs. 295

Willesden.—Church-rd., f.g. rents 24l., reversion in 86 yrs. 475

Bristol.—Sneyd-park, f.g. rents 92l., reversion in 944 yrs. 2,250

By WOOTTON & SON.

City-rd.—123 and 125, East-rd. (s.), u.t. 36 yrs., g.r. 2l., y.r. 140l. 700

By HENRY HENDRIKS & Co.

Bidford-on-Avon, Warwick.—Avonside House and 4 a. 3 r. 10 p., f. 1,300

By MADDISON, MILES, & MADDISON.

Belton, Suffolk.—Eight cottages, f. £805

Burgh Castle, Suffolk.—Post Office, f. 270

December 7.—By C. C. & T. MOORE.

Minories.—No. 52 (s.), f., y.r. 90l. 1,350

Leyton.—120, 122, and 124, Birkbeck-rd., u.t. 65½ yrs., g.r. 12l., w.r. 79l. 315

241, High-rd., u.t. 68½ yrs., g.r. 5l. 5s., p. 110

102, 104, and 106, Grove Green-rd., u.t. 80½ yrs., g.r. 13l. 10s., w.r. 117l. 400

Hoxton.—68 to 71, Buckland-st., u.t. 23 yrs., g.r. 21l., y.r. 148l. 660

77 to 85 (odd), Bridport-pl., u.t. 19 yrs., g.r. 22l., y.r. 192l. 140

By H. J. BLISS & SONS.

Hoxton.—36, 38, and 40, Mintern-st., u.t. 18 yrs., g.r. 15l. 15s., w.r. 126l. 10s. 230

By CORAY BROS.

Hackney.—22 and 24, Morning-la. (s.), c., y.r. 45l. 470

By MARK LIELL & SON.

Mile End.—30 to 43, Lyal-rd., u.t 35 yrs., g.r. 3l. 10s., y.r. 263l. 2,890

14, Selwyn-rd., u.t. 35 yrs., g.r. 10s., w.r. 39l. 15

Limehouse.—4 and 6, Galt-st., 166, 168, and 170, Rhodeswell-rd., f., w.r. 126l 785

By STIMSON & SONS.

Norwood.—Beulah Hill, f.g.r. 35l., reversion in 86 yrs. 320

Walworth.—3 and 4, Vowler-st., u.t. 31 yrs., g.r. 10l., w.r. 98l. 16s. 300

Sydenham. 51 and 53, Acacia-rd., u.t. 65 yrs., g.r. 11l. 16s., w.r. 57l. 4s. 225

Teddington.—Broad-st., f.g. rents 82l., reversion in 82 yrs. 1,915

Norwood.—Langley-rd., f.g. rents, 63l., reversion 90 yrs. 1,360

Park-rd., f.g. rents, 21l., reversion in 90 yrs. 465

Stratford.—Western-st., f.g. rents 20l., reversion in 50 yrs. 400

Tottenham.—Dongola-rd., f.g. rents 34l. 10s., reversion in 8- yrs. 710

December 8.—By FIELD & SONS.

East Ham.—76, Ruskin-av, f., w.r. 24l. 14s. 180

By HAMILTON & Co.

Edmonton.—59 to 79 (odd), St. Mary's-rd., u.t. 85 yrs., g.r. 40l., w.r. 157l. 6s. 200

By ALFRED SQUIRE & Co.

Regent-st.—41, Lexington-st. (s.), u.t. 4 yrs., g.r. 45l., y.r. 45l. 100

St. John's Wood.—2 and 4, Nugent-st., u.t. 55 yrs., g.r. 30l., y.r. 115l. 950

By SAMUEL WALLROCK & Co.

Carshalton, Surrey.—4, North-st., f., p. 400

By VENTON, BULL, & COOPER.

Wandsworth.—Jews-rd., f.g. rents 54l., reversion in 55 yrs. 1,120

Holloway.—Cromwell-rd., f.g. rents 24l. 5s., reversion in 54 yrs. 430

Milton-gr., f.g.r. 7l., reversion in 54 yrs. 150

Rupert-rd., f.g.r. 6l., reversion in 55 yrs. 140

Shepherd's Bush.—Melina-rd., f.g. rents 84l., reversion in 42 yrs. 1,730

Enfield.—Naggs Head-rd., f.g. rents 70l., reversion in 87 yrs. 1,220

Catford.—Glenwood-rd., f.g.r. 6l. 10s., reversion in 85 yrs. 135

Leyton.—Goodall, Millais roads, etc., f.g. rents 333l. 10s., reversion in 70 yrs. 6,055

Grange Park-rd., f.g.r. 5l., reversion in 57 yrs. 115

Pimlico.—Sutherland-st., f.g. rents 2s., reversion in 25 yrs. 205

Sutherland-st., f.g. rents 27l., reversion in 22 yrs. 745

Sutherland-st., l.g. rents 87l. 8s., u.t. 26 yrs., g.r. 10s., with reversion 1,145

Sussex-st., l.g. rents 24l. 8s., u.t. 26 yrs., g.r. 3l., with reversion 275

Westmorland-st., l.g. rents 94l. 10s., u.t. 26 yrs., g.r. 12l., with reversion 1,120

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; p. for possession; e.r. for estimated rental; w.r. for weekly rental; q.r. for quarterly rental; y.r. for yearly rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; la. for lane; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; av. for avenue; gdns. for gardens; yd. for yard; gr. for grove; b.h. for beerhouse; p.h. for public-house; o. for offices; s. for shops; ct. for court.

* All these applications are in the stage in which opposition to the grant of Patents upon them can be made.

TO CORRESPONDENTS.

NOTE.—All communications with respect to literary and artistic matters should be addressed to "THE EDITOR" (and not to any person by name); those relating to advertisements and other exclusively business matters should be addressed to "THE PUBLISHER," and not to the Editor.

All communications must be authenticated by the name and address of the sender, whether for publication or not. No notice can be taken of anonymous communications.

The responsibility of signed articles, letters, and papers read at meetings rests, of course, with the authors.

We cannot undertake to return rejected communications; and the Editor cannot be responsible for drawings, photographs, manuscripts, or other documents, or for models or samples sent to or left at this office, unless he has specially asked for them.

All drawings sent to or left at this office for consideration should bear the owner's name and address on either the face or back of the drawing. Delay and inconvenience may result from inattention to this.

Any commission to a contributor to write an article, or to execute or lend a drawing for publication, is given subject to the approval of the article or drawing, when received, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

N.B.—Illustrations of the First Premiated Design in any important architectural competition will always be accepted for publication by the Editor, whether they have been formally asked for or not.

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

Per 1000 Alongside, in River.

	£ s. d.
Best Stocks	1 13 0
Picked Stocks for Facings	2 7 0

Per 1000, Delivered at Railway Depôt.

	£ s. d.		£ s. d.
Flettons	1 10 6	Best Blue Pressed Staffordshire	3 15 0
Best Fareham Red	3 12 0	Do. Bullnose	4 0 0
Best Red Pressed Ruabon Facing	5 0 0	Best Stourbridge Fire Bricks	4 0 0
GLAZED BRICKS—			
Best White, Ivory, and Salt Glzd. Str'tch'rs	11 7 6	Double Headers	13 17 6
Headers	10 17 6	One Side and two Ends	17 17 6
Quoins, Bullnose, and 4½ in. Flats	14 17 6	Two Sides and one End	18 17 6
D'ble Stretchers	16 17 6	Splays & Squints	16 7 6

Second Quality £1 10s. per 1000 less than best.

	s. d.	
Thames and Pit Sand	6 9	per yard, delivered.
Thames Ballast	5 6	" "
Best Portland Cement	30 0	per ton, "
Best Ground Blue Lias Lime	19 0	" "

NOTE—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 13s. 0d. per yard delivered.
Stourbridge Fireclay in sacks 27s. 0d. per ton at rly dpt.

STONE.

Per Ft. Cube.

	s. d.
BATH STONE—delivered on road waggons, Paddington Depôt	1 6½
Do. do. delivered on road waggons, Nine Elms Depôt	1 9½
PORTLAND STONE (20 ft. average)—	
Brown Whitbed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 3
White Basebed, delivered on road waggons Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 4½

Per Ft. Cube, delivered at Railway Depôt.

	s. d.		s. d.
Ancaster in blocks..	1 10	Closeburn Red Freestone	2 0
Beer in blocks	1 6	Greenshill in blocks	1 10
Red Mansfield Freestone	2 4	Darley Dale in blocks	2 4
Talacre & Gwespyr Stone	2 8	Red Corsehill in blocks	2 3

YORK STONE—*Robin Hood Quality.*

Per Ft. Cube, Delivered at Railway Depôt. s. d.
Scappled random blocks 2 10

Per Ft. Super., Delivered at Railway Depôt.

	s. d.
6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 3
6 in. rubbed two sides ditto, ditto	2 6
3 in. sawn two sides slabs (random sizes)	0 11½
2 in. to 2½ in. sawn one side slabs (random sizes)	0 7
1½ in. to 2 in. ditto, ditto	0 6

HARD YORK—

Per Ft. Cube, Delivered at Railway Depôt.
Scappled random blocks 3 0

Per Ft. Super., Delivered at Railway Depôt.

	£ s. d.
6 in. sawn two sides landing to sizes (under 40 ft. super.)	2 8
6 in. rubbed two sides ditto	3 0
3 in. sawn two sides slabs (random sizes)	1 2
2 in. self-faced random flags	0 5

SLATES.

Per 1000 of 1200 at Railway Depôt.

In. In.	£ s. d.	In. In.	£ s. d.
20×10 best blue Bangor	13 2 6	20×10 best Eur'ka unfading green	15 17 6
20×12 ditto	13 17 6	20×12 ditto	18 7 6
20×10 1st quality ditto	13 0 0	18×10 ditto	13 5 0
20×12 ditto	13 15 0	16×8 ditto	10 5 0
16×8 ditto	7 5 0	20×10 permanent green	11 12 6
22×10 best blue Portmadoc	12 12 6	18×10 ditto	9 12 6
16×8 ditto	6 12 6	16×8 ditto	6 12 6

TILES.

At Railway Depôt.

	s. d.		s. d.
Best plain red roofing (per 1000)	42 0	Best "Hartshill" brand, plain sand-faced (per 1000)	50 0
Hip and Valley (per doz.)	3 7	Do. pressed (per 1000)	47 6
Best Broseley (per 1000)	50 0	Do. Ornamental (per 1000)	50 0
Do. Ornamental (per 1000)	52 6	Hip (per doz.)	4 0
Hip and Valley (per doz.)	4 0	Valley (per doz.)	3 6
Best Ruabon red, brown, or brindled (Edw'ds) (per 1000)	57 6	Staffords. (Hanley) Reds or Brindled (per 1000)	42 6
Do. Ornamental (per 1000)	60 0	Hand-made sand-faced (per 1000)	45 0
Hip (per doz.)	4 0	Hip (per doz.)	4 0
Valley (per doz.)	3 0	Valley (per doz.)	3 6

WOOD.

BUILDING WOOD.	At per standard. £ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	14 0 0 ... 15 10 0
Deals: best 3 by 9	13 10 0 ... 14 10 0

WOOD (*Continued*).

BUILDING WOOD (*Continued*).	At per standard. £ s. d.		£ s. d.
Battens: best 2½ in. by 7 in. and 8in., and 3 in. by 7 in. and 8 in.	11 10 0	...	12 10 0
Battens: best 2½ by 6 and 3 by 6 ...	0 10 0		less than 7 in. and 8 in.
Deals: seconds	1 0 0		less thn best.
Battens: seconds	0 10 0	"	"
2 in. by in. and 2 in. by 6 in.	9 10 0	...	10 10 0
2 in. by 4½ in. and 2 in. by 5 in.	9 0 0	...	10 0 0
Foreign Sawn Boards—			
1 in. and 1¼ in. by 7 in.	0 10 0		more than battens.
¼ in.	1 0 0		"
Fir timber: best middling Danzig or Memel (average specification)	At per load of 50 ft. 5 0 0	...	5 10 0
Seconds	4 10 0	...	5 0 0
Small timber (8 in. to 10 in.)	3 17 6	...	4 0 0
Small timber (6 in. to 8 in.)	3 5 0	...	3 10 0
Swedish balks	2 12 6	...	3 0 0
Pitch-pine timber (30 ft. average)	5 5 0	...	6 0 0

JOINERS' WOOD.	At per standard.		
White Sea: first yellow deals, 3 in. by 11 in.	24 10 0	...	25 10 0
3 in. by 9 in.	22 10 0	...	23 10 0
Battens, 2½ in. and 3 in. by 7 in.	17 0 0	...	18 0 0
Second yellow deals, 3in. by 11in.	19 0 0	...	20 0 0
" " 3 in. by 9 in.	18 0 0	...	19 10 0
Battens, 2½ in. and 3in. by 7 in.	14 0 0	...	15 0 0
Third yellow deals, 3 in. by 11 in. and 9 in.	14 0 0	...	15 0 0
Battens, 2½ in. and 3 in. by 7 in.	11 10 0	...	12 10 0
Petersburg: first yellow deals, 3 in. by 11 in.	21 10 0	...	22 10 0
Do. 3 in. by 9 in.	18 10 0	...	19 10 0
Battens	14 0 0	...	15 0 0
Second yellow deals, 3 in. by 11 in	16 10 0	...	17 10 0
Do. 3 in. by 9 in.	15 0 0	...	16 0 0
Battens	11 10 0	...	12 10 0
Third yellow deals, 3in. by 11 in.	13 10 0	...	14 10 0
Do. 3 in. by 9 in.	13 0 0	...	14 0 0
Battens	10 10 0	...	11 0 0
White Sea and Petersburg—			
First white deals, 3 in. by 11 in.	15 0 0	...	16 0 0
" " 3 in. by 9 in.	14 0 0	...	14 10 0
Battens	11 10 0	...	12 10 0
Second white deals, 3in. by 11in.	14 0 0	...	15 0 0
" " 3 in. by 9 in.	13 0 0	...	14 0 0
Battens	10 10 0	...	11 0 0
Pitch-pine: deals	19 0 0	...	21 0 0
Under 2 in. thick extra	0 10 0	...	1 0 0
Yellow Pine—First, regular sizes	44 0 0		upwards.
Oddments	32 0 0		"
Seconds, regular sizes	33 0 0		"
Oddments	28 0 0		"
Kurai Pine—Planks per ft. cube.	0 3 6	...	0 5 0
Danzig and Stettin Oak Logs—			
Large, per ft. cube	0 3 0	...	0 3 9
Small " "	0 2 6	...	0 2 6
Wainscot Oak Logs, per ft. cube	0 5 6	...	0 6 0
Dry Wainscot Oak, per ft. sup. as inch	0 0 9	...	0 0 11
¼ in. do. do.	0 0 8	...	—
Dry Mahogany—Houndras, Tabasco, per ft. super. as inch	0 0 10	...	0 1 1
Selected, Figury, per ft. super. as inch	0 1 6	...	0 2 6
Dry Walnut, American, per ft. super. as inch	0 0 10	...	0 1 0
Teak, per load	18 0 0	...	22 0 0
American Whitewood planks, per ft. cube	0 4 0	...	0 5 0
Prepared Flooring, etc.—	Per square.		
1 in. by 7 in. yellow, planed and shot	0 13 6	...	0 17 0
1 in. by 7 in. yellow, planed and matched	0 14 0	...	0 18 0
1¼ in. by 7 in. yellow, planed and matched	0 16 0	...	1 0 0
1 in. by 7 in. white, planed and shot	0 12 0	...	0 14 6
1 in. by 7 in. white, planed and matched	0 12 6	...	0 15 0
1¼ in. by 7 in. white, planed and matched	0 13 0	...	0 16 6
¾ in. by 7 in. yellow, matched and beaded or V-jointed brds.	0 11 0	...	0 13 6
1 in. by 7 in. " "	0 14 0	...	0 18 6
¾ in. by 7 in. white "	0 10 0	...	0 11 0
1 in. by 7 in. " "	0 12 9	...	0 15 0

6 in. at 6d. to 9d. per square less than 7 in.

JOISTS, GIRDERS, &c.

	In London, or delivered Railway Vans, per ton. £ s. d.		£ s. d.
Rolled Steel Joists, ordinary sections	7 10 0	...	8 0 0
Compound Girders, ordinary sections	9 10 0	...	10 0 0
Steel Compound Stanchions	11 0 0	...	12 0 0
Angles, Tees, and Channels, ordinary sections	9 10 0	...	10 0 0
Flitch Plates	9 10 0	...	9 10 0
Cast Iron Columns & Stanchions, including ordinary patterns	7 10 0	...	8 10 0

METALS.

IRON—	Per ton, in London. £ s. d.		£ s. d.
Common Bars	8 10 0	...	9 0 0
Staffordshire Crown Bars, good merchant quality	8 15 0	...	9 5 0
Staffordshire "Marked Bars"	10 10 0	...	—
Mild Steel Bars	8 15 0	...	9 5 0
Hoop Iron, basis price	9 5 0	...	9 10 0
" " Galvanised	17 0 0	...	—

(*And upwards, according to size and gauge.)

Sheet Iron Black—			
Ordinary sizes to 20 g.	9 15 0	...	—
" " 24 g.	10 15 0	...	—
" " 26 g.	12 5 0	...	—
Sheet Iron, Galvanised, flat, ordinary quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 0 0	...	—
Ordinary sizes to 22 g. and 24 g.	15 10 0	...	—
" " 26 g.	16 10 0	...	—
Sheet Iron, Galvanised, flat, best quality—			
Ordinary sizes to 20 g.	18 0 0	...	—
" " 22 g. and 24 g.	18 10 0	...	—
" " 26 g.	20 0 0	...	—

METALS (*Continued*).

IRON (*Continued*)—	Per ton, in London. £ s. d.		£ s. d.
Galvanised Corrugated Sheets—			
Ordinary sizes, 6ft. to 8ft. 20 g.	14 10 0	...	—
" " 22 g. and 24 g.	14 15 0	...	—
" " 26 g.	16 5 0	...	—
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	12 0 0	...	—
Best Soft Steel Sheets, 2 g. & 24 g.	13 0 0	...	—
" " 26 g.	15 0 0	...	—
Cut Nails, 3 in. to 6 in.	10 10 0	...	11 0 0

(Under 3 in., usual trade extras.)

LEAD, &c.

	£ s. d.		
LEAD—Sheet, English, 4lb. and up	19 7 6	...	—
Pipe in coils	19 17 6	...	—
Soil pipe	22 17 6	...	—
Compo pipe	22 17 6	...	—
ZINC—Sheet—	In casks of 10 cwt.		
Vielle Montagne	33 10 0	...	—
Silesian	33 5 0	...	—

Zinc, in bundles, 1s. per cwt. extra.

COPPER—					
Strong Sheet	per lb.	0	1 0	...	—
Thin "	"	0	1 1	...	—
Copper nails	"	0	0 10	...	—
Copper wire	"	0	0 10	...	—
BRASS—					
Strong Sheet	"	0	0 11	...	—
Thin	"	0	1 0	...	—
TIN—English Ingots	"	0	2 0	...	—
SOLDER—Plumbers'	"	0	0 8½	...	—
Tinmen's	"	0	0 11	...	—
Blowpipe	"	0	1 2	...	—

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.*

Per Ft., Delivered.

15 oz. thirds	2½d.	26 oz. fourths	3½d.
" fourths	1½d.	32 oz. thirds	3d.
21 oz. thirds	3d.	" fourths	4½d.
" fourths	2½d.	Fluted Sheet, 15 oz.	3½d.
26 oz. thirds	4d.	" 21 oz.	4½d.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.*

Per Ft., Delivered.

¼ Hartley's	2d.	Figured Rolled, Oxford Rolled, Oceanic, Arctic, Muffled, and Rolled Cathedral, white	3½d.
⅜ "	2½d.		
½ "	3½d.	Ditto, tinted	5d.

* Not less than three crates.

OILS, &c.

		£ s. d.
Raw Linseed Oil in pipes	per gallon	0 3 0
" " in barrels	"	0 3 1
" " in drums	"	0 3 3
Boiled " in barrels	"	0 3 3
" " in drums	"	0 3 6
Turpentine in barrels	"	0 2 11
" in drums	"	0 3 1
Genuine Ground English White Lead,	per ton	25 0 0
Red Lead, Dry	"	22 10 0
Best Linseed Oil Putty	per cwt.	0 10 0
Stockholm Tar	per barrel	1 12 0

VARNISHES, &c.

	Per gallon. £ s. d.
Fine Pale Oak Varnish	0 8 0
Pale Copal Oak	0 10 6
Superfine Pale Elastic Oak	0 12 6
Fine Extra Hard Church Oak	0 10 0
Superfine Hard-drying Oak, for seats of Churches	0 14 6
Fine Elastic Carriage	0 12 0
Superfine Pale Elastic Carriage	0 16 0
Fine Pale Maple	0 10 0
Finest Pale Durable Copal	0 18 0
Extra Pale French Oil	1 1 0
Eggshell Plating Varnish	0 18 0
White Pale Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 6
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 8 0
Berlin Black	0 16 0
Knotting	0 10 9
French and Brush Polish	0 10 6

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 10 a.m. *on Thursday.* [N.B.—We cannot publish Tenders unless authenticated either by the architect or the building owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is stated, nor any list in which the lowest Tender is under 100*l.* unless in some exceptional cases and for special reasons.]

* *Denotes accepted.* † *Denotes provisionally accepted.*

BARGOED.—For alterations to two shops at Bargoed, for Mrs. Coe, Hengoed. Mr. H. Gabe Jones, architect, Hengoed:—

E. James, Hengoed* £208

BRADFORD.—For erection of extension to photo works, Idle-road. Mr. H. E. Priestley, M.S.A., architect, 4, Bertram-road, Manningham, Bradford. Quantities by the architect:—

Masons: O. Booth & Son, Great Horton, Bradford* £305 0
Joiner: W. Whitfield, 27, Kirkgate, Shipley* ... 142 0
Slater: T. Thornton, Shipley* 36 10
Plasterers: J. & W. Bates, 761, Manchester-road, Bradford* 29 0
Plumber and Glazier: S. Dobson, 17, Oak-lane, Bradford* 29 10
Painter: W. Berryman, 46, Church-street, Manningham* 11 8

BUCKNALL.—For extensions to the hospital. Mr. E. Jones, architect, 10, Albion-street, Hanley:—

Grants	£3,800 0	C. Smith & Son	£3,532 0
Colley & Lindop	3,794 10	H. Wardle	3,531 0
J. Walters & Co.	3,765 10	H. Leonard	3,510 0
J. Cooke	3,745 0	Tompkinson & Bettolley	3,507 0
A. E. Chatfield	3,670 0	G. M. Sambrook	3,467 6
G. Ellis	3,609 0	C. Cornes & Son	3,355 0
T. Godwin	3,607 0	Bennett Bros., Burslem*	3,250 0
W. Sherratt	3,564 0		
J. W. Broadhurst	3,540 0		

CAERPHILLY.—For erection of twenty, or more, houses near Pontygwindy Hotel. Mr. H. Gabe Jones, architect and surveyor, Hengoed:—

Davies Bros.	£4,569	H. P. Jones	£4,010
F. Rees & Co.	4,372	G. Harris	3,800
T. Rossiter, jun.	4,300	D. Thomas & Son, Llanbradach*	3,695
Hamilton & Millard	4,240		
J. Lewis & Sons	4,160		

CHILDREY.—For Council school, for Berkshire Education Committee:—

—	Main Buildings. £ s. d.	Playgrounds, offices, playsheds, tarpaving, etc. £ s. d.	Total. £ s. d.
G. H. Wheeler	1,503 0 0	987 0 0	2,580 0 0
E. C. Hughes	1,440 0 0	999 0 0	2,439 0 0
G. Elms	1,482 0 0	927 0 0	2,409 0 0
A. Cox	1,431 0 0	911 10 0	2,342 10 0
Bosher & Sons, Cholsey‡	1,385 2 4	904 18 1	2,290 0 5
H. & C. Spackman	1,423 5 4	812 12 9	2,235 18 1

‡ Recommended for acceptance.

FOLKESTONE.—For extension and alterations at the public baths, Foord-road, for the Corporation of Folkestone. Mr. A. E. Nichols, M.Inst.C.E., Borough Engineer:—

F. W. & J. Clark, Radnor Park-road, Folkestone* £293

[Five other tenders received.]

HERMITAGE.—For Council School, for Berkshire Education Committee:—

—	Main Building. £ s. d.	Playgrounds, offices, playsheds, tarpaving, etc. £ s. d.	Total. £ s. d.
A. J. Chivers	1,654 0 0	1,195 0 0	2,849 0 0
Hoskins Bros.	1,564 10 0	1,169 10 0	2,734 0 0
Treasure Bros.	1,479 9 3	1,180 18 4	2,660 7 7
Collier & Catley, Ltd.	1,418 0 0	1,105 0 0	2,523 0 0
E. C. Hughes	1,350 0 0	1,130 0 0	2,480 0 0
H. Baker & Son	1,352 6 7	1,122 5 3	2,474 11 10
Bosher & Sons	1,344 10 7	1,020 19 7	2,365 10 2
G. Elms	1,336 0 0	1,013 0 0	2,349 0 0
A. Cox, Abingdon‡	1,340 0 0	1,001 13 0	2,341 13 0

‡ Recommended for acceptance.

KIDSGROVE.—For erection of a Primitive Methodist Church, Ball's Bank. Messrs. E. Jones & Jackson, architects, Hanley, Stoke-on-Trent:—

C. Cornes & Son	£359	T. Goodwin	£795
T. Godwin	858	C. Smith & Son	770
W. Rodgers	825	Bennett Bros	750
J. Jones	808	G. Goodwin, Tunstall*	730
J. Cooke	800		

LEEDS.—For painting the exterior of properties owned by the Development Committee. Mr. W. T. Lancashire, City Engineer, Leeds:—

Exterior of Property in York-street and Yard, Purdy-court, Lambs-court, etc.

J. Blackburn, Leeds* £19 0

Exterior of Property in Bridge-street, etc.

J. Blackburn, Leeds* £21 0

Exterior of Property in Templar-court and Moscow-street, etc.

W. Wheelhouse, Leeds* £23 14

Exterior of Property in High-street, etc.

W. Wheelhouse, Leeds* £12 10

LEYTONSTONE.—For the erection of a new police-station at Leytonstone. Mr. J. Dixon Butler, F.R.I.B.A., Architect, Surveyor to the Metropolitan Police District, New Scotland-yard, S.W. Quantities by Messrs. Thurgood, Son, & Chidgey, 8, Adelphi-terrace, Strand, W.C.:—

J. Jarvis & Sons, Ltd.	£5,908	F. J. Coxhead	£5,414
A. Fairhead & Sons	5,855	Grover & Son	5,391
W. Moss & Sons, Ltd.	5,675	Patman & Fotheringham	5,163
Higgs & Hill, Ltd.	5,594	J. S. Hammond & Son	5,113
W. J. Maddison	5,577	Perry & Co.	5,074
Killby & Gayford, Ltd.	5,425		

LONDON.—For the enlargement of the Cormont-road school, Brixton, for the London County Council:—

Rice & Son	£6,018 0 0	W. Akers & Co., Ltd.	£5,435 0 0
Courtney & Fairbairn, Ltd.	5,995 0 0	Galbraith Bros., Ltd.	5,301 0 6
J. Parsons	5,837 1 8	Rowley Bros.	5,359 0 0
J. Garrett & Son	5,898 0 0	W. King & Son	5,256 0 0
W. King & Son	5,845 0 0	J. & C. Bowyer, Ltd.	
J. Appleby & Sons	5,510 0 0		

[The Architect's estimate, comparable with the tenders, is £5,439.]

CHISWICK.—For the making up of Sharon-road, Chiswick, for the Chiswick Urban District Council. Mr. Edward Willis, A.M.Inst.C.E., Engineer and Surveyor, Chiswick Town Hall:—

—	Granolite.	Patent Victoria.	Croft.	Excelsior.	Atlas.	Brookes' Adamant.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
G. Wimpey, & Co.	—	—	371 0 0	371 0 0	371 0 0	371 0 0
Higgs & Randall	398 17 9	390 5 9	379 5 9	379 5 9	379 5 9	398 0 0
E. Free & Sons	407 18 10	407 18 10	407 18 10	396 2 10	401 8 2	404 13 6
F. G. Brummell, Willesden	379 10 11	384 16 11	383 4 3	364 16 11	358 6 3	*350 13 7

[Surveyor's estimate, £377.]

KENDON.—For Park-road and Queen's-road sewerage, etc., for the N.W. Urban District Council. Mr. S. Slater Grimley, M.Inst.C.E., Engineer and Surveyor to the Council:—

—	Hoop-lane Widening, etc.	Park-road and Queen's-road Sewerage, etc.			Church-terrace Improvement.	Bittacy-hill, Kerbing, etc.	Hammer's-lane, Kerbing, etc.
		For Ordinary Pipes.	Add if Jenning's Jointless Junctions Used.	Add if Doulton's Grouted Composite Joints Used.			
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Clements, Knowling, & Co.	1,357 0 0	4,877 0 0	39 10 0	191 10 0	147 0 0	897 0 0	737 0 0
J. Mowlem & Co., Westminster	911 15 11	4,451 13 6	92 15 0	184 7 6	107 3 11*	721 6 7	585 15 10
T. W. Pedrette, Enfield	1,124 14 0	4,343 3 2	90 0 0	165 0 0	110 4 2	700 2 8*	574 5 0*
F. G. Brummell	1,016 13 2	4,225 4 4	31 10 0	157 0 0	109 1 3	728 19 4	594 18 0
G. Wimpey & Co.	1,079 14 6	4,215 13 6	42 15 0	162 13 4	130 12 2	744 12 1	603 1 6
J. Dickson	1,128 4 4	4,000 6 6	33 0 0	207 0 0	118 11 6	1,027 8 6	828 16 0
R. Ballard, Child's Hill	800 1 0*	3,929 7 6	52 0 0	183 0 0	114 14 4	717 10 10	591 1 6
H. Farrow	1,035 4 9	3,894 11 1	20 0 0	150 0 0	107 14 4	809 8 2	649 15 0
Wilson, Border, & Co., Romford	1,025 10 6	3,454 8 7*	27 12 6*	192 15 0	123 13 6	812 1 2	844 9 8
Wetterman Bros.	—	3,433 2 9	90 15 4	170 12 3	—	—	—
W. Griffiths & Co.	1,176 15 2	—	—	—	121 16 6	797 4 0	632 8 8
Engineer's Estimate‡	992 0 0	4,632 11 11	—	—	171 16 4	622 5 4	597 6 6

‡ Including all castings and paving supplied by Council.

PENGAM.—For erecting house at Pengam, for Miss Davies, Glyn Ebbw Villa, Pengam. Mr. H. Gabe Jones, architect, Hengoed:—

E. James, Hengoed* £349 10

SCUNTHORPE.—For construction of brick sewer, granite concrete sewer, etc., Contract No 1. Mr. H. Walker, M.Inst.C.E., engineer, Nottingham:—

C. Chamberlain	£6,252 7 0	Middleton & Hopper	£5,264 2 11
J. E. Nadin	6,046 15 0	Edwards & Co.	5,110 19 0
T. Harper	5,960 0 0	T. W. Pedrette	5,050 0 0
H. H. Barry	5,900 0 0	Yorkshire Hennebique Contracting Co., Ltd.	4,900 0 0
Wellerman Bros.	5,893 16 2	H. E. Buckley, Bradford*	4,470 10 0
Lane Bros.	5,700 0 0		
M. W. S. France, Ltd.	5,605 0 0		
G. F. Tomlinson	5,435 0 0		
A. H. Price & Co.	5,418 17 1		
G. Bell & Son, Ltd.	5,281 0 0		

[Engineer's estimate, £4,905.]

SUTTON-ON-SEA.—For the construction of sewers, providing engines, constructing outfall works, laying mains, etc., for the Spilsby Rural District Council. Mr. Herbert Walker, M.Inst.C.E., engineer, King-street, Nottingham:—

C. Hensman & Son	£8,598 0 0	Lane Bros.	£6,781 5 0
G. P. Trentham	7,711 13 0	T. W. Pedrette	6,750 0 0
F. Perks & Son, Ltd.	7,650 0 0	Exors. of J. Arundel	6,736 14 6
W. W. Baleman	7,498 15 2	A. J. Price & Co.	6,700 0 0
G. E. Holmes	7,405 0 0	G. F. Tomlinson	6,587 0 0
S. Porter	7,400 0 0	H. E. Buedley	6,537 18 0
J. E. Nadin	7,339 12 0	H. H. Barry	6,435 1 6
C. Chamberlain	7,190 14 0	T. H. Harper, Carlton*	6,228 0 0
G. Bell & Son, Ltd.	6,963 0 0	M. W. S. France, Ltd.	6,073 6 3
Middleton & Hopper	6,925 0 0		

[Engineer's estimate, £6,275.]

OXFORD.—For Ruskin College, Oxford (first section). Messrs. Joseph & Smithem, architects and surveyors, 83, Queen-street, Cheapside:—

J. Parnell & Son	£10,515	W. Downs	£9,720
Foster & Dickson	10,333	Penfold & Loxley	9,570
W. Moss & Sons, Ltd.	9,965	G. E. Wallis & Sons	9,476
E. Organ	9,888	S. Hutchins & Sons	9,293
Wooldridge & Simpson	9,795	T. H. Kingerlee & Sons*	9,256
		J. Simms & Son‡	9,175

‡ Withdrawn.

TREDEGAR.—For erection of twelve houses, etc., and new road on the Beaufort Estate, for the Glanhowey Building Club. Messrs. T. Williams & Sons, architects and surveyors, Tredegar:—

Houses.

R. Williams	£2,324 10	L. Johns	£2,230 0
Davies & Price	2,450 0	W. Edwards	2,210 0
D. C. Jenkins	2,340 0	W. Cosslett, Ystradmynach*	2,042 0
W. Miles	2,274 0		
T. Dickinson	2,222 0		

Roads.

T. Dickinson	£331 0	W. Cosslett, Ystradmynach*	£184 15
W. Edwards	253 15		
W. Miles	223 16		

WOLSTANTON.—For erection of new infants' school and cookery centre. Mr. W. F. Slater, architect, Burslem:—

G. M. Sambrook	£6,750	J. Cooke	£6,130
J. H. Broadhurst & Sons	6,390	H. Wardle	6,050
W. Rogers	6,250	H. Johnson	5,900
C. Smith	6,200	S. Heath, Basford†	5,528

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